

IDENTIFIERS

dbGSS Id:

2082430

GSS name:

1M0444C13R

GenBank Acc: GenBank gi:

AZ615410 11737600

CLONE INFO

Clone Id:

UUGC1M0444C13 (R)

Insert length:

10000

Plate:

0444 Row: C Column: 13

DNA type:

Genomic

PRIMERS

Sequencing:

CACACAGGAAACAGCTATGACC

SEQUENCE

GTGCGCCCGGCGGCCGGCCGGCGGGGGGCG

Quality:

High quality sequence stops at base: 37

Entry Created: Dec 13 2000 Last Updated: Dec 13 2000

LIBRARY

CLASS:

plasmid ends

Lib Name:

Mouse 10kb plasmid UUGC1M library

Organism:

Mus musculus

Strain:

C57BL/6J

Sex:

Male

Lab host:

E. Coli strain XL10-Gold, T1-resistant, F-

Vector:

PWD42nv

Description:

Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson Laboratory Mouse DNA Resource (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4

polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gi|4732114|gb [AF129072.1], a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance.

SUBMITTER

Name:

Robert B. Weiss

Lab:

University of Utah Genome Center

Institution:

University of Utah

Address:

Rm. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E.,

SLC, UT 84112, USA

Tel:

801 585 5606 801 585 7177

Fax: E-mail:

ddunn@genetics.utah.edu

CITATIONS

Title:

Mouse whole genome scaffolding with paired end reads from

10kb plasmid inserts

Authors:

Dunn, D., Aoyagi, A., Barber, M., Beacorn, T., Duval, B., Hamil, C., Islam, H., Longacre, S., Mahmoud, M., Meenen, E., Pedersen, T., Reilly, M., Rose, M., Rose, R., Stokes, R., Tingey, A., von

Niederhausern, A., Wright, D., Weiss, R.

Year:

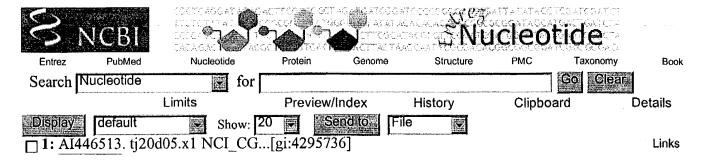
2000

Status:

Unpublished

MAP DATA

Disclaimer | Write to the Help Desk NCBI | NLM | NIH



IDENTIFIERS

dbEST Id:

2261187

EST name:

tj20d05.x1

GenBank Acc:

AI446513

GenBank gi:

4295736

CLONE INFO

Clone Id:

IMAGE: 2142057 (3')

Source:

NCI

DNA type:

cDNA

PRIMERS

Sequencing:

-40UP from Gibco

PolyA Tail:

Unknown

SEQUENCE

AACCGGCCCCCCCGGCCGGCCGGAAAAAAGGGG

Quality:

Trace considered overall poor quality.

Entry Created:

Feb 23 1999

Last Updated:

Mar 9 1999

COMMENTS

Tissue Procurement: Christopher Moskaluk, M.D., Ph.D.,

Michael R. Emmert-Buck, M.D., Ph.D.

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Arrayed by: Greg Lennon, Ph.D.

Center

Clone distribution: NCI-CGAP clone distribution information

DNA Sequencing by: Washington University Genome Sequencing

can be found through the I.M.A.G.E. Consortium/LLNL at:

www-bio.llnl.gov/bbrp/image/image.html
Trace considered overall poor quality

PUTATIVE ID

Assigned by submitter

SW:CA11 CHICK P02457 PROCOLLAGEN ALPHA 1(I) CHAIN PRECURSOR.

;

LIBRARY

Lib Name:

NCI_CGAP_Gas4

Organism:

Homo sapiens

Organ: Tissue type: stomach poorly differentiated adenocarcinoma with signet ring cell

features

Lab host:

DH10B

Vector: R. Site 1: pCMV-SPORT6

R. Site 2:

SalI NotI Description:

Cloned unidirectionally. Primer: Oligo dT. Average insert

size 1.69 kb. Life Technologies catalog #: 11549-011

SUBMITTER

Name: E-mail: Robert Strausberg, Ph.D.

cgapbs-r@mail.nih.gov

CITATIONS

Title:

National Cancer Institute, Cancer Genome Anatomy Project

(CGAP), Tumor Gene Index

Authors:

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap

Year:

1997

Status:

Unpublished

MAP DATA

Disclaimer | Write to the Help Desk NCBI | NLM | NIH

```
=> fil reg; d que 115
FILE 'REGISTRY' ENTERED AT 14:49:41 ON 01 JUL 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)
```

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 30 JUN 2004 HIGHEST RN 701907-96-2 DICTIONARY FILE UPDATES: 30 JUN 2004 HIGHEST RN 701907-96-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

	2660919 SEA FILE=REGISTRY ABB=ON SQL<43 AND SQL>16 - Sequence length limited to 847 SEA FILE=REGISTRY ABB=ON L6 AND NNNACCGGTNNNN{0-10}G{4-10} NNN greater							
L6	2660919 SEA FILE=REGISTRY ABB=ON SQL<43 AND SQL>16							
L7	2660919 SEA FILE=REGISTRY ABB=ON SQL<43 AND SQL>16 - Sequence 10.00 SQL>16 SEA FILE=REGISTRY ABB=ON L6 AND NNNACCGGTNNNN {0-10}G {4-10} NNN Greater ATCGATNNNN {0-10}G {4-10} NNNGCCGGCNNNN {0-10}G {4-10} NNNGTCGACNNN Than 16 bit							
L11	N{0-10}G{4-10}/SQSN 368 SEA FILE=REGISTRY ABB=ON L7 AND NNARYCGRYTNNN{0-10}G{4-10} NNT But lest RYCGRYANNN{0-10}G{4-10} NNCRYCGRYGNNN{0-10}G{4-10} NNGRYCGRYCNN than 43 nt							
	RYCGRYANNN $\{0-10\}G\{4-10\}\$ NNCRYCGRYGNNN $\{0-10\}G\{4-10\}\$ NNGRYCGRYCNN $\{4,4,4,4\}$							
	N(0-10)G(4-10)/SQSN							
L13	266 SEA FILE=REGISTRY ABB=ON L11 AND NANRYCGRYNTNN{0-10}G{4-10} NT							
	$ \begin{aligned} & \text{NRYCGRYNANN} \{0-10\} \text{G} \{4-10\} \mid \text{NCNRYCGRYNGNN} \{0-10\} \text{G} \{4-10\} \mid \text{NGNRYCGRYNC} \end{aligned} $							
T 1 4	$NN\{0-10\}G\{4-10\}/SQSN$							
L14	178 SEA FILE=REGISTRY ABB=ON L13 AND ANNRYCGRYNNTN $\{0-10\}G\{4-10\}\$ TN NRYCGRYNNAN $\{0-10\}G\{4-10\}\$ CNNRYCGRYNNGN $\{0-10\}G\{4-10\}\$ GNNRYCGRYNN							
	$CN\{0-10\}G\{4-10\}/SQSN$							
L15	70 SEA FILE=REGISTRY ABB=ON L14 AND GENBANK/LC							
	,							
	in 115 1-70 Sen Bank							
=> d	in 115 1-70							
T 4 F								
L15 IN	ANSWER 1 OF 70 REGISTRY COPYRIGHT 2004 ACS on STN							
TIM	GenBank AX816067 (9CI)							
L15	ANSWER 2 OF 70 REGISTRY COPYRIGHT 2004 ACS on STN							
IN	GenBank AR340848 (9CI)							
L15	ANSWER 3 OF 70 REGISTRY COPYRIGHT 2004 ACS on STN							
IN	ANSWER 3 OF 70 REGISTRY COPYRIGHT 2004 ACS on STN GenBank AX547938 (9CI) ANGWED 4 OF 70 REGISTRY COPYRIGHT 2004 ACS on STN Gran Bank accession # '5							
	accession #'s							
L15 IN	ANSWER 4 OF 70 REGISTRY COPYRIGHT 2004 ACS ON STN							
7.1/	GenBank BD070374 (9CI)							
L15	ANSWER 5 OF 70 REGISTRY COPYRIGHT 2004 ACS on STN							
IN	GenBank AX465423 (9CI)							
	- In the state of							
L15	ANSWER 6 OF 70 REGISTRY COPYRIGHT 2004 ACS on STN							
IN	GenBank AX465422 (9CI)							
	ANGUED 7 OF 70 BUGICARDY ADDUBTICITY ADAL NO CONT.							
L15	ANSWER 7 OF 70 REGISTRY COPYRIGHT 2004 ACS on STN							

IN	GenBank AX465403 (9CI)	en e
L15 IN	ANSWER 8 OF 70 REGISTRY GenBank AX465393 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 9 OF 70 REGISTRY GenBank AX465392 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 10 OF 70 REGISTRY GenBank AX465391 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 11 OF 70 REGISTRY GenBank AX465389 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 12 OF 70 REGISTRY GenBank AX465388 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 13 OF 70 REGISTRY GenBank AX465387 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 14 OF 70 REGISTRY GenBank AX465384 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 15 OF 70 REGISTRY GenBank AX465382 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 16 OF 70 REGISTRY GenBank AX352255 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 17 OF 70 REGISTRY GenBank AX352254 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 18 OF 70 REGISTRY GenBank AX352253 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 19 OF 70 REGISTRY GenBank AX352252 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 20 OF 70 REGISTRY GenBank AX352250 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 21 OF 70 REGISTRY GenBank AX352249 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 22 OF 70 REGISTRY GenBank AX352248 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 23 OF 70 REGISTRY GenBank AX352244 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 24 OF 70 REGISTRY GenBank AX352242 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 25 OF 70 REGISTRY GenBank AX352241 (9CI)	COPYRIGHT 2004 ACS on STN
L15 IN	ANSWER 26 OF 70 REGISTRY GenBank AX352240 (9CI)	COPYRIGHT 2004 ACS on STN
	ANSWER 27 OF 70 REGISTRY GenBank AX352239 (9CT)	COPYRIGHT 2004 ACS on STN

IN

GenBank AX352239 (9CI)

L15 IN	ANSWER 28 OF 70 REGISTRY GenBank AX352238 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 29 OF 70 REGISTRY GenBank AX352237 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 30 OF 70 REGISTRY GenBank AX352233 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 31 OF 70 REGISTRY GenBank AX352231 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 32 OF 70 REGISTRY GenBank AX352230 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 33 OF 70 REGISTRY GenBank AX352229 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 34 OF 70 REGISTRY GenBank AX352228 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 35 OF 70 REGISTRY GenBank AX352227 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 36 OF 70 REGISTRY GenBank AX352226 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 37 OF 70 REGISTRY GenBank AX352225 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 38 OF 70 REGISTRY GenBank AX352221 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 39 OF 70 REGISTRY GenBank AX352219 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 40 OF 70 REGISTRY GenBank AX352218 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 41 OF 70 REGISTRY GenBank AX352217 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 42 OF 70 REGISTRY GenBank AX352216 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 43 OF 70 REGISTRY GenBank AX352215 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 44 OF 70 REGISTRY GenBank AX352211 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 45 OF 70 REGISTRY GenBank AX352209 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 46 OF 70 REGISTRY GenBank AX352208 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 47 OF 70 REGISTRY GenBank AX352207 (9CI)	COPYRIGHT	2004	ACS	on	STN
L15 IN	Add 300 1 to a 1 to	COPYRIGHT	2004	AĊŚ	on	STN

L15 IN	ANSWER 49 OF 70 GenBank AX352205	2	COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 50 OF 70 GenBank AX352204		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 51 OF 70 GenBank AX352200		COPYRIGHT	2004	ĀCS	on	STN
L15 IN	ANSWER 52 OF 70 GenBank AX352198		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 53 OF 70 GenBank AX352167		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 54 OF 70 GenBank AX105138		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 55 OF 70 GenBank AX194473		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 56 OF 70 GenBank AX194472		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 57 OF 70 GenBank AX194443		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 58 OF 70 GenBank AX194441		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 59 OF 70 GenBank AX194438		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 60 OF 70 GenBank AX194437		COPYRIGHT	2004	ĀCS	on	STN
L15 IN	ANSWER 61 OF 70 GenBank AX194434		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 62 OF 70 GenBank AX194453		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 63 OF 70 GenBank AX194442		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 64 OF 70 GenBank AX194439		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 65 OF 70 GenBank AX194432		CÖPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 66 OF 70 GenBank AX104885		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 67 OF 70 GenBank AZ615410		COPYRIGHT	2004	ACS	on	STN
L15 IN	ANSWER 68 OF 70 GenBank A86868		COPYRIGHT	2004	ACS	on	STN
L15	ANSWER 69 OF 70	REGISTRY	COPYRIGHT	2004	ACS	on	STN

```
IN GenBank AI446513 (9CI)
L15 ANSWER 70 OF 70 REGISTRY COPYRIGHT 2004 ACS on STN
IN GenBank AR009571 (9CI)
=> s 114 not 115
LIT 108-L14 NOT LIS - all non-GrenBank records
=> d sqide 117 1-108
L17 ANSWER 1 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN 700878-96-2 REGISTRY - use Registry # to match signence to citation
CN INDEX NAME NOT YET ASSIGNED
FS NUCLEIC ACID SEQUENCE
SQL 20
NA 2 a 4 c 12 g 2 t
NTE modified
         ----- location ----- description
modified link g-1 - g-2 P-thio modified link g-2 - t-3 P-thio modified link g-15 - g-16 P-thio modified link g-16 - g-17 P-thio modified link g-17 - g-18 P-thio modified link g-18 - g-19 P-thio modified link g-19 - g-20 P-thio
SEQ
        1 ggtgcaccgg tgcaggggg
           HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
   Unspecified
CI
    MAN
   CA
SR
LC STN Files: CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
       (Uses)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 2 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    700878-95-1 REGISTRY
CN
    INDEX NAME NOT YET ASSIGNED
FS
    NUCLEIC ACID SEQUENCE
SQL 20
NA
         3 c 11 g 3 t
    3 a
NTE modified
        ----- location ----- description
1 ggtgcatcga tgcaggggg
```

HITS AT: 3-20

```
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
     MAN
CI
     CA
SR
    STN Files:
                  CAPLUS
LC
DT.CA CAplus document type: Patent
       Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 3 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     700878-94-0 REGISTRY
RN
     INDEX NAME NOT YET ASSIGNED
CN
    NUCLEIC ACID SEQUENCE
FS
SQL 20
                11 g 3 t
NA
     3 a 3 c
NTE modified
----- location ----- description
_____

        modified link
        g-1
        - g-2

        modified link
        g-2
        - t-3

        modified link
        g-15
        - g-16

        modified link
        g-16
        - g-17

                                     P-thio
                                         P-thio
                                         P-thio
                                         P-thio
modified link g-17 modified link g-18
modified link
                           - g-18
                                          P-thio
                           - g-19
                                          P-thio
                      - g-20
modified link g-19
                                      P-thio
SEQ
         1 ggtgcatega tgcagggggg
            ______
HITS AT:
           3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
     MAN
CI
     ĊĀ
ŚR
     STN Files:
                 CAPLUS
LC
DT.CA CAplus document type: Patent
       Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 4 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     698754-77-7 REGISTRY
RN
CN
     DNA, d(G-G-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G) (9CI) (CA INDEX NAME)
FS
     NUCLEIC ACID SEQUENCE
SOL 20
     2 a
NA
         4 C
                12 g 2 t
SEQ
         1 ggtgcacçgg tgcagggggg
            ______ ===========
HITS AT:
           3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
CI
     MAN
SR
     CA
LC
    STN Files:
                 CAPLUS
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)
```

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
L17 ANSWER 5 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     698754-76-6 REGISTRY
RN
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
CN
FS
    NUCLEIC ACID SEQUENCE
SOL 20
          3 c
     3 a
                11 g
NA
                       3 t
SEO
         1 ggtgcatcga tgcagggggg
             ------
HITS AT:
           3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
ΜF
CI
     MAN
     CA
SR
     STN Files:
                 CAPLUS
LC
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 6 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
1.17
     698753-95-6 REGISTRY
RN
     DNA, d(N-N-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-G) (9CI) (CA INDEX NAME)
CN
     NUCLEIC ACID SEQUENCE
FS
SQL
    20
NA
     2 a
           4 C
                10 g
                       2 t
                             2 n
         1 nntgcaccgg tgcagggggg
SEO
             _____
HITS AT:
           3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
ΜĖ
     Unspecified
CI
     MAN
     CA
SR
     STN Files:
                 CAPLUS
LC
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 7 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
1.17
RN
     698400-54-3 REGISTRY
     DNA, d(N-N-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G) (9CI) (CA INDEX NAME)
CN
FS
     NUCLEIC ACID SEQUENCE
SOL 20
NA
     3 a
          3 c
                 9 g
                      3 t
                            2 n
SEQ
         1 nntgcatcga tgcaggggg
             -------
HITS AT:
           3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
CI
     MAN
SR
     CA
LC
     STN Files:
                 CAPLUS
DT.CA CAplus document type: Patent
       Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
```

```
L17 ANSWER 8 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    698400-48-5 REGISTRY
    DNA, d(N-N-T-G-C-G-C-G-G-C-G-C-A-G-G-G-G-G) (9CI)
CN
                                                           (CA INDEX NAME)
FS
    NUCLEIC ACID SEQUENCE
SQL
    20
NA
    1 a
        5 c
                11 g
                      l t
                             2 n
SEQ
        1 nntgcgccgg cgcaggggg
            _____
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    Unspecified
MF
CI
    MAN
ŚR
    CA
    STN Files:
                 CAPLUS
LC
DT.CA CAplus document type: Patent
RL.P
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
       (Uses)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 9 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
    698400-46-3 REGISTRY
    DNA, d(N-N-T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G-G) (9CI)
CN
                                                          (CA INDEX NAME)
FS
    NUCLEIC ACID SEQUENCE
SOL
    20
NΑ
    2 a
          4 c
                10 g
                       2 t
SEQ
        1 nntgcgtcga cgcaggggg
            -------
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
ΜF
    Unspecified
CI
    MAN
ŞR
    CA
ĽĊ
    STN Files:
                 CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 10 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    662376-92-3 REGISTRY
CN
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G-G) (9CI)
                                                           (CA INDEX NAME)
OTHER NAMES:
CN
    153: PN: WO2004014322 TABLE: 8 unclaimed sequence
FS
    NUCLEIC ACID SEQUENCE
SQL
   20
NΆ
    3 a
         3 c
                11 g
                       3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
____
Not Given|WO2004014322
         unclaimed
         TABLE 8
```

SEQ

1 ggtgcatcga tgcaggggg

Nguyen 10/068160

_____ ___

C

STN Files: CA, CAPLUS, TOXCENTER

Page 9

```
ITS AT:
          3~20
*RELATED SEQUENCES AVAILABLE WITH SEQLINK**
   Unspecified
I
   MAN
R
   CA
C
   STN Files: CA, CAPLUS
T.CA CAplus document type: Patent
L.P Roles from patents: PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
17 ANSWER 11 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
   640803-43-6 REGISTRY
N.
N DNA, d(G-sp-G-sp-T-G-C-A-T-C-G-A-T-G-C-A-G-G-sp-G-sp-G-sp-G-sp-G) (9CI)
    (CA INDEX NAME)
   NUCLEIC ACID SEQUENCE
s
QL 20
Δ.
   3 a 3 c 11 g 3 t
TE modified
----- location ----- description
type

      acidified link
      g-1
      - g-2

      acidified link
      g-2
      - t-3

      acidified link
      g-16
      - g-17

      acidified link
      g-17
      - g-18

      acidified link
      g-18
      - g-19

      acidified link
      g-19
      - g-20

                                            P-thio
                                            P-thio
                                            P-thio
                                            P-thio
                                            P-thio
                                            P-thio
EQ
        1 ggtgcatcga tgcaggggg
            ______
IITS AT: 3-20
*RELATED SEQUENCES AVAILABLE WITH SEQLINK**
F
   Unspecified
Ι
   MAN
R
   CA
C
   STN Files: CA, CAPLUS
T.CA CAplus document type: Journal
L.NP Roles from non-patents: BIOL (Biological study)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
17 ANSWER 12 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
Ñ
    637803-30-6 REGISTRY
N
   DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G) (9CI) (CA INDEX NAME)
S
    NUCLEIC ACID SEQUENCE
OL 20
Α
    3 a
         3 c 11 g 3 t
EQ
        1 ggtgcatcga tgcagggggg
            ______
ITS AT:
          3-20
*RELATED SEQUENCES AVAILABLE WITH SEQLINK**
F
   Unspecified
Ι
    MAN
R
    CA
```

```
DT.CA CAplus document type: Journal
      Roles from non-patents: BIOL (Biological study); USES (Uses)
RL.NP
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 13 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
     631926-12-0 REGISTRY
     DNA, d(G-sp-G[oxy(mercaptophosphinylidene)oxy-1,3-
CN
     propanediyloxy (mercaptophosphinylidene) oxy] T-C-G-T-G-
     C[oxy(mercaptophosphinylidene)oxy-1,3-propanediyloxy(mercaptophosphinylide
     ne) oxy] A-T-C-G-A-T [oxy (mercaptophosphinylidene) oxy-1, 3-
     propanediyloxy (mercaptophosphinylidene) oxy] G-C-A-C-G-
     A [oxy (mercaptophosphinylidene) oxy-1,3-propanediyloxy (mercaptophosphinylide
     ne)oxy]G-G-sp-G-sp-G-sp-G-sp-G) (9CI) (CA INDEX NAME)
     NUCLEIC ACID SEQUENCE
FS
SQL
    26
                        4 t
           5 C
                 13 g
NA
     4 a
NTE modified
_____
 type ----- location ----- description
modified link g-1 - g-2 P-thio modified link g-22 - g-23 P-thio modified link g-23 - g-24 P-thio modified link g-24 - g-25 P-thio modified link g-25 - g-26 P-thio uncommon link g-2 - t-3 unavail uncommon link c-8 - a-9 unavail
                                         unavailable
                                         unavailable
uncommon link t-14
                            - g-15
                                         unavailable
uncommon link a-20 - g-21 unavailable
         1 ggtcgtgcat cgatgcacga gggggg
SEQ
                HITS AT:
           6 - 26
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
CĪ
     MAN
SR
     CA
                 CA, CAPLUS, TOXCENTER, USPATFULL
     STN Files:
LC
DT.CA CAplus document type: Patent
       Roles from patents: BIOL (Biological study); PREP (Preparation); PRP
RL.P
       (Properties); USES (Uses)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
     ANSWER 14 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
     631926-11-9 REGISTRY
     DNA, d(G-sp-G[oxy(mercaptophosphinylidene)oxy-1,3-
ÇN
     propanediyloxy (mercaptophosphinylidene) oxyl T-G-
     C[oxy(mercaptophosphinylidene)oxy-1,3-propanediyloxy(mercaptophosphinylide
     ne)oxy]A-T-C-G-A-T[oxy(mercaptophosphinylidene)oxy-1,3-
     propanediyloxy (mercaptophosphinylidene) oxy] G-C-
     A [oxy (mercaptophosphinylidene) oxy-1,3-propanediyloxy (mercaptophosphinylide
     ne)oxy]G-G-sp-G-sp-G-sp-G-sp-G) (9CI) (CA INDEX NAME)
     NUCLEIC ACID SEQUENCE
FS
SOL
     20
NA
     3 a
           3 c
                 11 g 3 t
NTE modified
  ----- location -----
                                              description
 type
```

```
modified link g-1 - g-2 P-thio
modified link g-16 - g-17 P-thio
modified link g-17 - g-18 P-thio
modified link g-18 - g-19 P-thio
modified link g-19 - g-20 P-thio
uncommon link g-2 - t-3 unavailable
uncommon link c-5 - a-6 unavailable
uncommon link t-11 - g-12 unavailable
uncommon link a-14 - g-15 unavailable
SEQ
           1 ggtgcatcga tgcagggggg
               ===============
HITS AT: 3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
MF
CÏ
     MAN
     CA
SR
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP
         (Properties); USES (Uses)
                   1 REFERENCES IN FILE CA (1907 TO DATE)
                   1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 15 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
     573722-83-5 REGISTRY
CN
     DNA, d(G-sp-G-sp-T-G-C-A-C-C-G-G-T-G-C-A-G-G-sp-G-sp-G-sp-G-sp-G) (9CI)
      (CA INDEX NAME)
FS
      NUCLEIC ACID SEQUENCE
SQL 20
NA
     2 a 4 c 12 g 2 t
NTE modified
 type ----- location ----- description
modified link g-1 - g-2 P-thio
modified link g-2 - t-3 P-thio
modified link g-16 - g-17 P-thio
modified link g-17 - g-18 P-thio
modified link g-18 - g-19 P-thio
modified link g-19 - g-20 P-thio
           1 ggtgcaccgg tgcaggggg
               _____
HITS AT: 3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
CI
    MAN
SR
     CA
LC
     STN Files: CA, CAPLUS
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); USES (Uses)
                   1 REFERENCES IN FILE CA (1907 TO DATE)
                   1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 16 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
      573722-82-4 REGISTRY
```

Nguyen 10/068160

Page 12

```
DNA, d(G-sp-G-sp-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-Sp-G) (9CI) (CA INDEX
CN
    NAME)
    NUCLEIC ACID SEQUENCE
FS
SQL
    20
        3 C
              11 g 3 t
NA
    3 a
NTE modified
       ----- location -----
                                           description
______
modified link g-1 - g-2 P-thio modified link g-2 - t-3 P-thio modified link g-19 - g-20 P-thio
SEO
        1 ggtgcatcga tgcagggggg
           ------
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
    MAN
CI
SR
    ĊA
LC
    STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); USES (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 17 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    573722-80-2 REGISTRY
RN
    DNA, d(G-sp-G-sp-T-G-C-A-T-C-G-A-T-G-C-A-G-G-sp-G-sp-G-sp-G-sp-G) (9CI)
CN
     (CA INDEX NAME)
FS
    NUCLEIC ACID SEQUENCE
SQL 20
NA
    3 a
          3 c
               11 g 3 t
NTE modified
_______
        ----- location ----- description
______
modified link g-1 - g-2 P-thio modified link g-2 - t-3 P-thio modified link g-16 - g-17 P-thio modified link g-17 - g-18 P-thio modified link g-18 - g-19 P-thio modified link g-19 - g-20 P-thio
SEQ
        1 ggtgcatcga tgcagggggg
           HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    Unspecified
MF
    MAN
CI
ŞR
    CA
LC
    STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); USES (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 18 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
```

```
RN
    569431-26-1 REGISTRY
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G) (9CI)
CN
                                                      (CA INDEX NAME)
OTHER NAMES:
    53: PN: US20030144229 SEQID: 53 unclaimed DNA
    NUCLEIC ACID SEQUENCE
SQL 19
NA
    3 a
          3 C
                10 q
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
        Reference
Not Given US2003144229
         unclaimed
         SEQID 53
SEO
        1 ggtgcatega tgcaggggg
            ______
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEOLINK**
MF
    Unspecified
    MAN
CI
SR
    CA
    STN Files:
                 CA, CAPLUS, TOXCENTER, USPATFULL
LC
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 19 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    569431-16-9 REGISTRY
    DNA, d(G-G-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
OTHER NAMES:
    42: PN: US20030144229 SEQID: 42 unclaimed DNA
    NUCLEIC ACID SEQUENCE
SQL 20
    2 a
          4 C
              12 g
                      2 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
       Reference
Not Given US2003144229
         unclaimed
         SEQID 42
        1 ggtgcaccgg tgcagggggg
            ------
HITS AT:
          3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
LC
    STN Files:
                 CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA Caplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
```

```
ANSWER 20 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
     569431-14-7 REGISTRY
CN
     DNA, d(G-G-T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G-G-G) (9CI)
                                                                     (CA INDEX NAME)
OTHER NAMES:
     39: PN: US20030144229 SEQID: 39 unclaimed DNA
CN
FS
     NUCLEIC ACID SEQUENCE
SQL
     20
NΑ
     2 a
            4 C
                   12 g
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
          Reference
=======+=========
Not Given US2003144229
           unclaimed
           SEQID 39
SEQ
          1 ggtgcgtcga cgcaggggg
               ______
HITS AT:
            3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
CI
     MAN
SR
     ČA
LC
     STN Files:
                    CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RL.P
        Roles from patents: PRP (Properties)
                 1 REFERENCES IN FILE CA (1907 TO DATE)
                 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
     ANSWER 21 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
     569431-10-3 REGISTRY
ĊŃ
     \overline{DNA}, d(\overline{G}-\overline{G}-\overline{T}-\overline{G}-\overline{C}-\overline{A}-\overline{T}-\overline{C}-\overline{G}-\overline{A}-\overline{T}-\overline{G}-\overline{C}-\overline{A}-\overline{G}-\overline{G}-\overline{G}-\overline{G}-\overline{G}-\overline{G}) (9CI)
                                                                      (CA INDEX NAME)
OTHER NAMES:
     32: PN: US20030144229 SEQID: 32 unclaimed DNA
CN
     NUCLEIC ACID SEQUENCE
FS
SQL
     20
     3 a
NA
            3 C
                   11 g
                           3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
           Reference
Not Given | U$2003144229
           unclaimed
           SEQID 32
SEO
          1 ggtgcatçga tgcagggggg
               HITS AT:
            3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
CI
     MAN
SR
     CA
LC
                    CA, CAPLUS, TOXCENTER, USPATFULL
     STN Files:
DT.CA CAplus document type: Patent
RL.P
        Roles from patents: PRP (Properties)
```

```
- 1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 22 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
     552439-63-1 REGISTRY
RN
    DNA, d(G-G-T-G-G-A-T-C-G-A-T-C-C-A-G-G-G-G-G-G) (9CI)
                                                           (CA INDEX NAME)
ÇN
OTHER NAMES:
     24: PN: WO03054161 SEQID: 26 unclaimed DNA
CN
     NUCLEIC ACID SEQUENCE
FS
SQL
    20
                       3 t
NA
     3 a
          3 C
                11 g
PATENT ANNOTATIONS (PNTE):
Sequence Patent
Source
         Reference
Not Given | WO2003054161
         unclaimed
         SEQID 26
SEQ
         1 ggtggatċga tccagggggg
            ------
           3 - 20
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
CI
     MAN
SR
     CA
                 CA, CAPLUS
     STN Files:
LC
DT.CA CAplus document type: Patent
       Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 23 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
     552439-62-0 REGISTRY
RN
     DNA, d(G-G-T-A-T-A-T-C-G-A-T-A-T-A-G-G-G-G-G-G) (9CI)
                                                           (CA INDEX NAME)
CN
OTHER NAMES:
     23: PN: WO03054161 SEQID: 25 unclaimed DNA
CN
     NUCLEIC ACID SEQUENCE
FS
SQL
   20
     5 a
                      5 t
                9 g
NA
           1 c
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
Not Given W02003054161
         unclaimed
         SEQID 25
SEO
         1 ggtatatcga tatagggggg
             _____
HITS AT:
           3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
MF
CI
     MAN
SR
     CA
                 CA, CAPLUS
     STN Files:
LC:
```

Page 16

```
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
RL.P
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 24 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    552439-61-9 REGISTRY
CN
    DNA, d(C-C-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
OTHER NAMES:
CN
    22: PN: W003054161 SEQID: 24 unclaimed DNA
FS
    NUCLEIC ACID SEQUENCE
SQL
    20
NA
    3 a
         5 C
                9 g
                      3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
-----
Not Given WO2003054161
         unclaimed
         SEQID 24
SEO
        1 cctgcatcga tgcaggggg
            ------
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
LC
    STN Files:
                CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
ŘL.P
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 25 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    552439-56-2 REGISTRY
RN
CN
    DNA, d(G-G-T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G-G) (9CI)
                                                        (CA INDEX NAME)
OTHER NAMES:
CN
    17: PN: W003054161 SEQID: 19 unclaimed DNA
    NUCLEIC ACID SEQUENCE
FS
SQL 20
    2 a
NA
         4 C
                12 g
                      2 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
        Reference
Not Given W02003054161
         unclaimed
         SEQID 19
SEO
        1 ggtgcgtcga cgcagggggg
            -----
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEOLINK**
MF
    Unspecified
CI
    MAN
```

```
SR - CA
LC
    STN Files: CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE).
    ANSWER 26 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
    552439-53-9 REGISTRY
    DNA, d(T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
CN
                                                      (CA INDEX NAME)
OTHER NAMES:
    14: PN: WO03054161 SEQID: 16 unclaimed DNA
CN
    NUCLEIC ACID SEQUENCE
FS
SOL
    18
NA
    3 a
          3 C
                9 g
                      3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
        Reference
Source
Not Given W02003054161
         unclaimed
         SEQID 16
SEO
        1 tgcatcgatg cagggggg
          ___________
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
LC
    STN Files:
                 CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 27 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
    552439-50-6 REGISTRY
    DNA, d(G-G-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                         (CA INDEX NAME)
OTHER NAMES:
    11: PN: WO03054161 SEQID: 13 unclaimed DNA
CN
FS
    NUCLEIC ACID SEQUENCE
SQL
    20
NA
    2 a
        4 C
                12 g
                       2 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
*=====+==========
Not Given | WO2003054161
         unclaimed
         SEQID 13
SEQ
        1 ggtgcaccgg tgcaggggg
            HITS AT:
          3-20
```

```
Unspecified
MF
ÇΙ
     MAN
SR
     CA
     STN Files: CA, CAPLUS
LC
DT.CA CAplus document type: Patent
       Roles from patents: PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 28 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     552439-49-3 REGISTRY
RN
     DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
CN
                                                              (CA INDEX NAME)
OTHER NAMES:
     10: PN: WOO3054161 SEQID: 12 unclaimed DNA
FS
     NUCLEIC ACID SEQUENCE
SQL 20
     3 a 3 c 11 g 3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source | Reference
______
Not Given | WO2003054161
          unclaimed
          SEQID 12
SEQ
         1 gqtqcatcqa tqcaggggg
             HITS AT:
           3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
MF
CI
     MAN
SR
    ÇA
     STN Files: CA, CAPLUS
LC
DT.CA CAplus document type: Patent
       Roles from patents: PRP (Properties)
                1 REFERENCES IN FILE CA (1907 TO DATE)
                1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 29 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     537058-59-6 REGISTRY
RN
     DNA, d(G-sp-G-sp-T-G-C-A-T-C-G-A-T-G-C-A-G-G-sp-G-sp-G-sp-G-sp-G) (9CI)
CN
     (CA INDEX NAME)
FS
     NUCLEIC ACID SEQUENCE
SQL 20
     3 a 3 c 11 g
NA
NTE modified
 type ----- location ----- description
modified link g-1 - g-2 P-thio modified link g-2 - t-3 P-thio modified link g-16 - g-17 P-thio modified link g-17 - g-18 P-thio modified link g-18 - g-19 P-thio modified link g-19 - g-20 P-thio
SEQ
         1 ggtgcatcga tgcagggggg
```

Searched by Barb O'Bryen, STIC 571-272-2518

Nguyen 10/068160 Page 19

HITS AT: 3-20 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** Unspecified CI MAN SR CA LCSTN Files: CA, CAPLUS DT.CA CAplus document type: Journal RL.NP Roles from non-patents: BIOL (Biological study) 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) L17 ANSWER 30 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN RN 537058-58-5 REGISTRY CN DNA, d(G-sp-G-sp-T-G-C-A-C-C-G-G-T-G-C-A-G-G-sp-G-sp-G-sp-G-sp-G) (9CI) (CA INDEX NAME) NUCLEIC ACID SEQUENCE FS SQL 20 NA 2 a 4 c 12 g 2 t NTE modified ----- location ----- description modified link g-1
modified link g-2
modified link g-16
modified link g-17
modified link g-18
modified link g-19 - g-2 P-thio - t-3 - g-17 P-thio P-thio - g-18 P-thio P-thio P-thio - g-19 - g-12 - g-20 SEQ 1 ggtgcaccgg tgcaggggg HITS AT: **RELATED SEQUENCES AVAILABLE WITH SEQLINK** MF Unspecified CI MAN SR ĊA LC STN Files: CA, CAPLUS DT.CA CAplus document type: Journal RL.NP Roles from non-patents: BIOL (Biological study) 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) L17 ANSWER 31 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN RN534784-78-6 REGISTRY CNDNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9C1) (CA INDEX NAME) OTHER NAMES: CN2: PN: WO03043588 SEQID: 2 unclaimed DNA F\$ NUCLEIC ACID SEQUENCE SQL 20 NA 3 a 3 c 11 q 3 t PATENT ANNOTATIONS (PNTE): Sequence | Patent Source Reference Not Given W02003043588

unclaimed SEQID 2

```
SEQ
        1 qqtqcatega tgcagggggg
            HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
     CA
                CA, CAPLUS, TOXCENTER
LC
     STN Files:
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 32 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
     524986-12-7 REGISTRY
RN
    DNA, d(G-G-T-G-G-A-T-C-G-A-T-C-C-A-G-G-G-G-G-G) (9CI)
                                                           (CA INDEX NAME)
CN
OTHER NAMES:
CN
     89: PN: WO03040308 SEQID: 89 unclaimed DNA
     NUCLEIC ACID SEQUENCE
FS
SOL
    20
NA
     3 a
          3 C
               11 q
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
Not Given | WO2003040308
         unclaimed
         SEQID 89
SEQ
         1 ggtggatega tccagggggg
             _____
HITS AT:
           3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
MF
CI
     MAN
SR
     CA
                 CA, CAPLUS, TOXCENTER
LC
     STN Files:
DT.CA CAplus document type: Patent
       Roles from patents: PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
     ANSWER 33 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
     524986-11-6 REGISTRY
RN
     DNA, d(G-G-T-A-T-A-T-C-G-A-T-A-T-A-G-G-G-G-G-G) (9CI)
                                                           (CA INDEX NAME)
CN
OTHER NAMES:
     88: PN: WO03040308 SEQID: 88 unclaimed DNA
CN
     NUCLEIC ACID SEQUENCE
FS
SQL
     20
                      5 t
NA
     5 a
           1 c
                 9 g
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
--------
Not Given W02003040308
         unclaimed
```

10/068160 Nguyen

Page 21

SEQID 88 SEQ 1 ggtatatcga tatagggggg HITS AT: 3-20 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** ΜF Unspecified CI MAN SR CA CA, CAPLUS, TOXCENTER STN Files: LC DT.CA CAplus document type: Patent Roles from patents: PRP (Properties) RL.P 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) ANSWER 34 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN L17 RN 524986-00-3 REGISTRY DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G-G-C-A-G-G-C-T-T-C-T-C) CN(9CI) (CA INDEX NAME) OTHER NAMES: 77: PN: W003040308 SEQID: 77 unclaimed DNA CN FS NUCLEIC ACID SEQUENCE SQL 32 NA 4 a 7 c 14 g PATENT ANNOTATIONS (PNTE): Sequence | Patent Source Reference Not Given | WO2003040308 unclaimed SEQID 77 SEQ 1 ggtgcatcga tgcagggggg tgcaggcttc tc ************ HITS AT: 3-20 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** ΜF Unspecified CI MAN \$R CA STN Files: CA, CAPLUS, TOXCENTER $^{\rm LC}$ DT.CA CAplus document type: Patent Roles from patents: PRP (Properties) RL.P 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) L17 ANSWER 35 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN 524985-99-7 REGISTRY RNCN(9CI) (CA INDEX NAME) OTHER NAMES: CN76: PN: W003040308 SEQID: 76 unclaimed DNA FS NUCLEIC ACID SEQUENCE SQL 32 NA 4 a 7 c 14 g 7 t

PATENT ANNOTATIONS (PNTE): Sequence Patent

```
Reference
Source
Not Given | WO2003040308
         unclaimed.
         SEQID 76
SEQ
        1 tegagegtte teggtgeate gatgeagggg gg
                         ____ __
          15 = 32
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
ŚR
    CA
                CA, CAPLUS, TOXCENTER
LC
    STN Files:
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
RL.P
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 36 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     524985-98-6 REGISTRY
RN
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G-T-C-G-A-G-C-G-T-T-C-T-C)
CN
     (9CI) (CA INDEX NAME)
OTHER NAMES:
    75: PN: WO03040308 SEQID: 75 unclaimed DNA
ÇN
    NUCLEIC ACID SEQUENCE
FS
SQL
    32
          7 c
NA
    4 a
              14 g
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
Not Given WO2003040308
         unclaimed
         SEQID 75
SEQ
        1 ggtgcatcga tgcagggggg tcgagcgttc tc
            HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
LC
    STN Files:
                CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 37 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
ŘŇ
    524985-93-1 REGISTRY
CN
    DNA, d(G-G-T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G-G) (9CI)
                                                         (CA INDEX NAME)
OTHER NAMES:
    67: PN: WO03040308 SEQID: 67 unclaimed DNA
CN
    NUCLEIC ACID SEQUENCE
FS
SOL 20
NA
    2 a
          4 C
               12 g
                       2 t
```

```
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
========+========
Not Given WO2003040308
         unclaimed
         SEQID 67
SEO
         1 ggtgcgtcga cgcagggggg
            _____
HITS AT:
          3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    Unspecified
MF
CI
    MAN
SR
    STN Files: CA, CAPLUS, TOXCENTER
LC
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 38 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
     524985-91-9 REGISTRY
CN
    DNA, d(G-G-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                           (CA INDEX NAME)
OTHER NAMES:
    65: PN: WO03040308 SEQID: 65 unclaimed DNA
FŚ
    NUCLEIC ACID SEQUENCE
SQL 20
    2 a
          4 c 12 g
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
======+=========
Not Given WO2003040308
         unclaimed
         SEQID 65
SEO
         1 ggtgcaccgg tgcaggggg
            HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
ŚŘ
    CA
LC
    STN Files: CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 39 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     524985-88-4 REGISTRY
RN
CN
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
OTHER NAMES:
CN
    61: PN: WO03040308 SEQID: 61 unclaimed DNA
FS
    NUCLEIC ACID SEQUENCE
```

```
SQL 20
    3 a
          3 c
                11 g
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
Not Given W02003040308
         unclaimed
         SEQID 61
SEO
        1 ggtgcatcga tgcaggggg
            HITS AT:
          3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
    STN Files:
                 CA, CAPLUS, TOXCENTER
LC
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)

1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 40 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     524084-27-3 REGISTRY
RN
     DNA, \quad d(G-G-G-G-T-C-G-A-C-G-T-C-G-A-C-G-T-C-G-A-G-G-G-G-G-G) \quad (9CI) 
CN
    INDEX NAME)
OTHER NAMES:
     420: PN: US20030087848 SEQID: 1077 unclaimed DNA
CN
FS
    NUCLEIC ACID SEQUENCE
SOL
    27
NA
    3 a 5 c
                16 g
                       3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
------+--------
Not Given US2003087848
         unclaimed
         SEQID 1077
SEO
        1 ggggtcgacg tcgacgtcga ggggggg
          HITS AT:
          1-27
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
    CA
SR
    STN Files:
                 CA, CAPLUS, USPATZ, USPATFULL
LC
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
RL.P
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 41 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
     503576-65-6 REGISTRY
RN
ĊN
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G) (9CI) (CA INDEX NAME)
```

```
OTHER NAMES:
                the contract of the second contract of
     33: PN: US20030060440 FIGURE: 1 unclaimed sequence
CN
     NUCLEIC ACID SEQUENCE
FS
SQL
    18
NA
                9 g
                      3 t
     3 a
          3 C
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
       Reference
Source
_____
Not Given US2003060440
         unclaimed
         FIGURE 1
SEQ
         1 ggtgcatcga tgcagggg
            ______
HITS AT:
          3-18
     Unspecified
CI
     MAN
SR
     ÇA
                 CA, CAPLUS, TOXCENTER, USPATFULL
LC
     STN Files:
DT.CA CAplus document type: Patent
       Roles from patents: PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
     ANSWER 42 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
     503576-64-5 REGISTRY
     DNA, d(A-A-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                            (CA INDEX NAME)
OTHER NAMES:
     31: PN: US20030060440 FIGURE: 1 unclaimed sequence
CN
     NUCLEIC ACID SEQUENCE
FS
SQL
    20
                       3 t
NA
     5 a
          3 C
                 9 g
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
Not Given | US2003060440
         unclaimed
         FIGURE 1
SEQ
         1 aatgcatcga tgcagggggg
             ------
HITS AT:
           3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
MF
     MAN
CI
ŚŔ
     ČA
                 CA, CAPLUS, TOXCENTER, USPATFULL
     STN Files:
LC
DT.CA CAplus document type: Patent
       Roles from patents: PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
     ANSWER 43 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
     503576-63-4 REGISTRY
     DNA, d(G-G-G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                                (CA INDEX NAME)
CN
```

```
OTHER NAMES:
    21: PN: US20030060440 FIGURE: 1 unclaimed sequence
CN
FS
    NUCLEIC ACID SEQUENCE
SQL
    22
                       3 t
NΑ
    3 a
          3 C
                13 g
PATENT ANNOTATIONS (PNTE):
Sequence Patent
Source
         Reference
_____
Not Given | US2003060440
         unclaimed
         FIGURE 1
SEQ
        1 ggggtgcatc gatgcagggg gg
              HITS AT:
          5 - 22
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
                 CA, CAPLUS, TOXCENTER, USPATFULL
    STN Files:
ĿĊ
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
RL.P
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 44 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
    503575-94-8 REGISTRY
RN
    DNA, d(G-G-T-G-G-A-T-C-G-A-T-C-C-A-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
ĊN
OTHER NAMES:
    111: PN: US20030060440 SEQID: 40 unclaimed DNA
CN
FS
    NUCLEIC ACID SEQUENCE
SQL
    20
                       3 t
NA
    3 a
          3 c 11 g
PATENT ANNOTATIONS (PNTE):
Sequence Patent
        Reference
Source
Not Given | US2003060440
         unclaimed
         SEQID 40
SEO
        1 ggtggatcga tccagggggg
            ------
HITS AT:
          3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
                 CA, CAPLUS, TOXCENTER, USPATFULL
LC
    STN Files:
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
RL.P
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 45 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
```

```
RN
    503575-93-7 REGISTRY
    DNA, d(G-G-T-A-T-A-T-C-G-A-T-A-T-A-G-G-G-G-G-G) (9C1)
                                                         (CA INDEX NAME)
CN
OTHER NAMES:
    110: PN: US20030060440 SEQID: 39 unclaimed DNA
CN
    NUCLEIC ACID SEQUENCE
FS
SQL 20
    5 a
NA
          1 c 9 g
                     5 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
       Reference
Source
======+=========
Not Given US2003060440
         unclaimed
         SEQID 39
SEO
        1 ggtatatega tatagggggg
            HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    Unspecified
MF
CI
    MAN
SR
    CA
LC
    STN Files:
                 CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 46 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    503575-92-6 REGISTRY
RN
    DNA, d(C-C-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                         (CA INDEX NAME)
CN
OTHER NAMES:
    109: PN: US20030060440 SEQID: 38 unclaimed DNA
CN
    NUCLEIC ACID SEQUENCE
FS
SQL 20
NA
    3 a
          5 c 9 g
                    3 t
PATENT ANNOTATIONS (PNTE):
Sequence Patent
Source Reference
Not Given | US2003060440
         unclaimed
         SEQID 38
SEO
        1 cctgcatcga tgcagggggg `
            ------
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    ĆA
LC
    STN Files:
                 CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
```

```
L17 ANSWER 47 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    503575-76-6 REGISTRY
RN
    DNA, d(T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G) (9CI) (CA INDEX NAME)
CN
OTHER NAMES:
    85: PN: US20030060440 SEQID: 14 unclaimed DNA
ÇN
FS
    NUCLEIC ACID SEQUENCE
SQL
    18
NA
    2 a
         4 C
              10 g
                       2 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
======+==========
Not Given US2003060440
         unclaimed
         SEQID 14
SEQ
        1 tgcgtcgacg cagggggg
          ------
HITS AT:
          1-18
    Unspecified
MF
CI
    MAN
ŚR
    ČÁ
    STN Files:
               CA, CAPLUS, TOXCENTER, USPATFULL
LC
DT.CA CAplus document type: Patent
RL.P
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 48 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     503572-73-4 REGISTRY
RN
CN
    DNA, d(G-G-T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
OTHER NAMES:
    102: PN: US20030060440 SEQID: 31 claimed DNA
CN
    NUCLEIC ACID SEQUENCE
FS
SQL 20
    2 a
NA
         4 c
              12 g
                       2 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
______
Not Given US2003060440
         claimed
         SEQID 31
SEQ
        1 ggtgcgtcga cgcaggggg
            ------
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
LC
    STN Files:
                CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
```

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
L17 ANSWER 49 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    503572-69-8 REGISTRY
RN
    DNA, d(T-G-C-G-C-C-G-C-G-C-A-G-G-G-G-G) (9CI) (CA INDEX NAME)
CN
OTHER NAMES:
    88: PN: US20030060440 SEQID: 17 claimed DNA
CN
FS
    NUCLEIC ACID SEQUENCE
SQL
    18
NΑ
    1 a
         5 C
                11 g
PATENT ANNOTATIONS (PNTE):
Sequence Patent
Source
         Reference
_____
Not Given | US2003060440
         claimed
         SEQID 17
SEQ
         1 tgcgccggcg cagggggg
          _____
          1-18
HITS AT:
    Unspecified
MF
CI
    MAN
SR
     CA
                 CA, CAPLUS, TOXCENTER, USPATFULL
     STN Files:
LC
DT.CA CAplus document type: Patent
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 50 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     503572-66-5 REGISTRY
RN
    DNA, d(T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-G) (9CI) (CA INDEX NAME)
CN
OTHER NAMES:
     84: PN: US20030060440 SEQID: 13 claimed DNA
CN
    NUCLEIC ACID SEQUENCE
FS
SQL
    18
NA
     2 a
         4 C
                10 g 2 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
____+
Not Given | US2003060440
         claimed
         SEQID 13
         1 tgcaccggtg cagggggg
SEQ
          ___________
HITS AT:
          1-18
     Unspecified
MF
    MAN
CI
SR
     CA
     STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
LC
DT.CA CAplus document type: Patent
       Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
```

1 REFERENCES IN FILE CAPLUS (1907 TO DATE) L17 ANSWER 51 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN RN503572-65-4 REGISTRY CNDNA, d(T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G) (9CI) (CA INDEX NAME) OTHER NAMES: 83: PN: US20030060440 SEQID: 12 claimed DNA FS NUCLEIC ACID SEQUENCE SQL 18 NA 3 a 3 C 9 g PATENT ANNOTATIONS (PNTE): Sequence | Patent Reference Source ______ Not Given US2003060440 claimed SEQID 12 SEQ 1 tgcatcgatg cagggggg HITS AT: 1-18 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** MF Unspecified MAN CISR CA CA, CAPLUS, TOXCENTER, USPATFULL LCSTN Files: DT.CA CAplus document type: Patent Roles from patents: BIOL (Biological study); PRP (Properties); USES (Uses) 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) L17 ANSWER 52 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN RN503572-63-2 REGISTRY CN DNA, d(G-G-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-G) (9CI) (CA INDEX NAME) OTHER NAMES: 73: PN: US20030060440 SEOID: 2 claimed DNA CN FS NUCLEIC ACID SEOUENCE SQL 20 NA 2 a 4 C 12 g 2 t PATENT ANNOTATIONS (PNTE): Reference

Sequence | Patent Source ======+======== Not Given US2003060440 claimed SEQID 2

SEQ 1 ggtgcaccgg tgcaggggg

HITS AT: 3-20

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

CA, CAPLUS, TOXCENTER, USPATFULL LĊ STN Files:

Nguyen 10/068160 Page 31

```
DT.CA
      CAplus document type: Patent
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 53 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
     503572-62-1 REGISTRY
RN
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
CN
OTHER NAMES:
     72: PN: US20030060440 SEQID: 1 claimed DNA
CN
    NUCLEIC ACID SEQUENCE
FS
SQL 20
          3 c
NA
     3 a
                11 g
                       3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
=======+==========
Not Given|US2003060440
         claimed
         SEQID 1
SEQ
         1 ggtgcat@ga tgcagggggg
            ______
HITS AT:
          3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
MF
     MAN
CI
SR
     CA
LC
                 CA, CAPLUS, TOXCENTER, USPATFULL
     STN Files:
DT.CA CAplus document type: Patent
       Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 54 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
     501983-30-8 REGISTRY
RN
     DNA, d(G-G-G-G-T-C-G-A-C-G-T-C-G-A-C-G-T-C-G-A-G-G-G-G-G-G-G-G) (9CI)
CN
                                                                         (CA
     INDEX NAME)
OTHER NAMES:
CN
     479: PN: US20030050268 SEQID: 1021 unclaimed DNA
     NUCLEIC ACID SEQUENCE
FS
SOL 27
     3 a
          5 C
                16 g
                       3 t
NA
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
Not Given US2003050268
         unclaimed
         SEQID 1021
SEO
         1 ggggtcgacg tcgacgtcga ggggggg
           ______
HITS AT:
          1-27
```

```
**RELATED SEOUENCES AVAILABLE WITH SEOLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
                CA, CAPLUS, USPATFULL
LC
    STN Files:
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
RL.P
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 55 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
    501834-44-2 REGISTRY
    DNA, d(G-G-T-G-G-A-T-C-G-A-T-C-C-A-G-G-G-G-G) (9CI) (CA INDEX NAME)
CN
OTHER NAMES:
CN
    43: PN: WO03020884 SEOID: 43 unclaimed DNA
F$
    NUCLEIC ACID SEQUENCE
SQL 20
NΑ
          3 c
               11 g 3 t
    3 a
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
********
Not Given W02003020884
         unclaimed
         SEQID 43
SEQ
         1 ggtggatega tccagggggg
            HITS AT:
           3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
    MAN
CI
SR
    CA
LÇ
    STN Files:
                CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)

1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 56 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     501834-43-1 REGISTRY
RN
                                                           (CA INDEX NAME)
CN
     DNA, d(G-G-T-A-T-A-T-C-G-A-T-A-T-A-G-G-G-G-G-G-G) (9CI)
OTHER NAMES:
CN
     42: PN: W003020884 SEQID: 42 unclaimed DNA
FS
     NUCLEIC ACID SEQUENCE
SQL
    20
          1 c
                9 g
     5 a
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
#DC5====+####=====
Not Given W02003020884
          unclaimed
         SEQID 42
SEQ
         1 ggtatatega tatagggggg
             _____
```

```
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEOLINK**
    Unspecified
CI
    MAN
SR
    CA
LC
    STN Files:
                CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 57 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    501834-32-8 REGISTRY
RN
CN
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G-G-C-A-G-G-C-T-T-C-T-C)
     (9CI)
           (CĂ INDEX NAME)
OTHER NAMES:
    31: PN: WO03020884 SEQID: 31 unclaimed DNA
CN
FS
    NUCLEIC ACID SEQUENCE
SOL
    32
NA
    4 a
         7 c
              14 ġ
                      7 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
        Reference
Source
______
Not Given WO2003020884
         unclaimed
         SEQID 31
SEO
        1 ggtgcatcga tgcaggggg tgcaggcttc tc*
            _____ ___
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
LC
    STN Files:
                CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 58 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    501834-31-7 REGISTRY
    (9CI)
           (CA INDEX NAME)
OTHER NAMES:
    30: PN: WO03020884 SEQID: 30 unclaimed DNA
FS
    NUCLEIC ACID SEQUENCE
SQL
    32
    4 a
          7 c
               14 g
                     7 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
        Reference
Source
========+==========
Not Given W02003020884
         unclaimed
```

SEQID 30

```
SEQ
        1 tcgagcgttc tcggtgcate gatgcagggg gg
                        HITS AT:
          15-32
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    Unspecified
MF
CI
    MAN
SR
    CA
LC
    STN Files:
                 CA, CAPLUS
DT.CA CAplus document type: Patent
RL.P
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 59 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    501834-30-6 REGISTRY
RN
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G-G-G-A-G-C-G-T-T-C-T-C)
CN
     (9CI) (CA INDEX NAME)
OTHER NAMES:
    29: PN: W003020884 SEQID: 29 unclaimed DNA
CN
    NUCLEIC ACID SEQUENCE
FS
SQL 32
          7 c
                14 q
                       7 t
NA
    4 a
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
---------
Not Given W02003020884
         unclaimed
         SEQID 29
SEO
        1 ggtgcatcga tgcagggggg tcgagcgttc tc
            HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    Unspecified
MF
CI
    MAN
SR
    CA
LC
    STN Files:
                 CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 60 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
    501834-25-9 REGISTRY
    DNA, d(G-G-T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G-G) (9CI)
                                                        (CA INDEX NAME)
OTHER NAMES:
    21: PN: WO03020884 SEQID: 21 unclaimed DNA
FS
    NUCLEIC ACID SEQUENCE
SOL 20
NA
    2 a 4 c
                12 g
                       2 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
        Reference
_______
```

10/068160 Nguyen Page 35

Not Given WO2003020884 unclaimed SEQID 21 SEO 1 ggtgcgtcga cgcagggggg -----HITS AT: 3-20 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** Unspecified CI MAN SR CA LCSTN Files: CA, CAPLUS DT.CA CAplus document type: Patent Roles from patents: PRP (Properties) 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) L17 ANSWER 61 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN RN501834-16-8 REGISTRY DNA, d(N-N-T-G-C-G-C-G-G-C-G-C-A-G-G-G-G-G-G) (9CI) (CA INDEX NAME) CN OTHER NAMES: 8: PN: WO03020884 SEQID: 8 unclaimed DNA NUCLEIC ACID SEQUENCE FŚ SOL 20 NA 1 a 5 c 11 q 1 t 2 n PATENT ANNOTATIONS (PNTE): Sequence | Patent Reference Source ______ Not Given W02003020884 unclaimed SEQID 8 SEO 1 nntgegeegg cgcaggggg -----HITS AT: 3-20 **RELATED SEQUENCES AVAILABLE WITH SEQLINK** Unspecified MF CI MAN SR CA LCSTN Files: CA, CAPLUS DT.CA CAplus document type: Patent Roles from patents: PRP (Properties) 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) ANSWER 62 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN L17 501834-15-7 REGISTRY RN DNA, d(N-N-T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G-G) (9CI) (CA INDEX NAME) CNOTHER NAMES: 7: PN: WO03020884 SEQID: 7 unclaimed DNA CN FS NUCLEIC ACID SEQUENCE SQL 20 NΑ 2 a 4 C 10 g 2 t 2 n

PATENT ANNOTATIONS (PNTE):

Sequence | Patent

```
Reference
Source
Not Given | WO2003020884
         unclaimed
         |SEQID 7
SEO
         1 nntgcgtcga cgcaggggg
            ------
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
    STN Files:
LC
                 CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 63 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     501834-14-6 REGISTRY
RN
CN
    DNA, d(N-N-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
OTHER NAMES:
     6: PN: WO03020884 SEQID: 6 unclaimed DNA
CN
    NUCLEIC ACID SEQUENCE
FS
SQL
    20
NA
     2 a
          4 C
                10 g
                       2 t
                            2 n
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
Not Given W02003020884
         lunclaimed
         SEQID 6
SEQ
        1 nntgcaccgg tgcagggggg
            ------
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
    STN Files:
LC
                 CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 64 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    501834-13-5 REGISTRY
    DNA, d(N-N-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G) (9CI)
                                                         (CA INDEX NAME)
OTHER NAMES:
CN
    5: PN: WO03020884 SEQID: 5 unclaimed DNA
FS
    NUCLEIC ACID SEQUENCE
SQL 20
          3 с
NA
    3 a
                9 g
                     3 t
                           2 n
```

```
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
_____+
Not Given W02003020884
         unclaimed
         SEQID 5
SEQ
        1 nntgcatcga tgcagggggg
             HITS AT:
          3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
MF
     MAN
CI
SR
     CA
                 CA, CAPLUS
     STN Files:
LC
DT.CA CAplus document type: Patent
       Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
     ANSWER 65 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
     501729-68-6 REGISTRY
     DNA, d(G-G-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                           (CA INDEX NAME)
CN
OTHER NAMES:
     2: PN: WO03020884 SEQID: 2 claimed DNA
CN
     NUCLEIC ACID SEQUENCE
FS
SQL
     20
          4 C
                12 g
                       2 t
NΆ
     2 a
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
______
Not Given | WO2003020884
          claimed
         SEQID 2
SEO
         1 ggtgcacegg tgcagggggg
             ______
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
ΜF
     Unspecified
CI
     MAN
SR
     CA
                 CA, CAPLUS
LC
     STN Files:
DT.CA CAplus document type: Patent
       Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
     ANSWER 66 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
     501729-67-5 REGISTRY
     DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                           (CA INDEX NAME)
CN
OTHER NAMES:
     1: PN: WO03020884 SEQID: 1 claimed DNA
CN
     NUCLEIC ACID SEQUENCE
FS
```

SOL 20

```
NA
     3 a
          3 č
                11 q
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
---------
Not Given W02003020884
         claimed
         SEQID 1
SEO
         1 ggtgcatcga tgcaggggg
            HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
CI
     MAN
SR
     CA
LC
     STN Files:
                 CA, CAPLUS
DT.CA CAplus document type: Patent
       Roles from patents: BIOL (Biological study); PRP (Properties); USES
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 67 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
     500239-90-7 REGISTRY
CN
     DNA, \quad d(G-G-G-G-T-C-G-A-C-G-T-C-G-A-C-G-T-C-G-A-G-G-G-G-G-G-G-G) \quad (9CI)
                                                                        (CA
     INDEX NAME)
OTHER NAMES:
     55: PN: WO03015711 SEQID: 56 unclaimed DNA
FS
     NUCLEIC ACID SEQUENCE
SQL
    27
NA
     3 a
          5 C
                16 g
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
______
Not Given W02003015711
         unclaimed
         SEQID 56
SEO
         1 ggggtcgacg tcgacgtcga gggggg
           _____
HITS AT:
          1-27
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
CI
    MAN
SR
     CA
LC
     STN Files:
                 CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RL.P
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 68 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     482663-89-8 REGISTRY
RN
```

```
CN.
      DNA, d(G-sp-G[oxy(mercaptophosphinylidene)oxy-1,3-
      propanediyloxyphosphinicooxy]T-C-G-T-G-C[oxyphosphinicooxy-1,3-
      propanediyloxyphosphinicooxy] A-T-C-G-A-T [oxyphosphinicooxy-1,3-
      propanediyloxyphosphinicooxy]G-C-A-C-G-A[oxyphosphinicooxy-1,3-
      propanediyloxyphosphinicooxy]G-G-sp-G-sp-G-sp-G-sp-G) (9CI) (CA INDEX
      NAME)
      NUCLEIC ACID SEQUENCE
FŞ
SQL 26
NA 4 a 5 c
                    13 g 4 t
NTE modified
_____
       ----- location ----- description
_____
modified link g-1 - g-2 P-thio modified link g-22 - g-23 P-thio modified link g-23 - g-24 P-thio modified link g-24 - g-25 P-thio modified link g-25 - g-26 P-thio uncommon link g-2 - t-3 unavailable uncommon link c-8 - a-9 unavailable uncommon link t-14 - g-15 unavailable uncommon link a-20 - g-21 unavailable
SEO
           1 ggtcgtgcat cgatgcacga gggggg
                   ____ ====
HITS AT:
             6 - 26
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
      Unspecified
      MAN
CI
      CA
SR
                      CA, CAPLUS, TOXCENTER, USPATFULL
      STN Files:
LC
DT.CA CAplus document type: Patent
        Roles from patents: BIOL (Biological study); PREP (Preparation); PRP
RL.P
         (Properties); USES (Uses)
                  1 REFERENCES IN FILE CA (1907 TO DATE)
                  1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 69 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
      482663-88-7 REGISTRY
RN
      DNA, d(G-sp-G[oxy(mercaptophosphinylidene)oxy-1,3-
ÇN
      propanediyloxyphosphinicooxy]T-G-C[oxyphosphinicooxy-1,3-
      propanediyloxyphosphinicooxy]A-T-C-G-A-T[oxyphosphinicooxy-1,3-
      propanediyloxyphosphinicooxy]G-C-A[oxyphosphinicooxy-1,3-
      propanediyloxyphosphinicooxy]G-G-sp-G-sp-G-sp-G-sp-G) (9CI) (CA INDEX
      NAME)
      NUCLEIC ACID SEQUENCE
FS
SQL 20
      3 a 3 c 11 g 3 t
NA
NTE modified
 type ----- location ----- description
modified link g-1 - g-2 P-thio modified link g-16 - g-17 P-thio modified link g-17 - g-18 P-thio modified link g-18 - g-19 P-thio modified link g-18 - g-19 P-thio modified link g-19 - g-20 P-thio uncommon link g-2 - t-3 unavailable uncommon link c-5 - a-6 unavailable uncommon link t-11 - g-12 unavailable
```

Page 40

```
uncommon link a-14 - g-15 unavailable
           1 ggtgcatcga tgcagggggg
               -----
HITS AT:
             3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
      Unspecified
CI
      MAN
SR
      CA
      STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
LC
DT.CA CAplus document type: Patent
        Roles from patents: BIOL (Biological study); PREP (Preparation); PRP
RL.P
         (Properties); USES (Uses)
                  1 REFERENCES IN FILE CA (1907 TO DATE)
                  1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 70 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
      459471-17-1 REGISTRY
RN
      \label{eq:defDNA} \texttt{DNA}, \ \texttt{d}(\texttt{G}-\texttt{sp}-\texttt{G}-\texttt{sp}-\texttt{T}-\texttt{G}-\texttt{C}-\texttt{A}-\texttt{T}-\texttt{C}-\texttt{G}-\texttt{A}-\texttt{T}-\texttt{G}-\texttt{C}-\texttt{A}-\texttt{G}-\texttt{sp}-\texttt{G}-\texttt{sp}-\texttt{G}-\texttt{sp}-\texttt{G}-\texttt{sp}-\texttt{G}) \ \ (\texttt{9CI})
      (CA INDEX NAME)
      NUCLEIC ACID SEQUENCE
FS
SOL 20
NA
     3 a
           3 c 11 g 3 t
NTE modified
______
           ----- location ----- description
modified link g-1 - g-2 P-thio
modified link g-2 - t-3 P-thio
modified link g-15 - g-16 P-thio
modified link g-16 - g-17 P-thio
modified link g-17 - g-18 P-thio
modified link g-18 - g-19 P-thio
modified link g-19 - g-20 P-thio
SEO
           1 ggtgcatega tgcagggggg
               _____
HITS AT: 3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
CI
     MAN
SR
     CA.
ЪĊ
      STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties)
                  1 REFERENCES IN FILE CA (1907 TO DATE)
                  1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 71 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
      459471-16-0 REGISTRY
RN
      DNA, d(G-sp-G-sp-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-Sp-G-sp-G) (9C1) (CA)
CN
      INDEX NAME)
FS
      NUCLEIC ACID SEQUENCE
SQL 20
NA
      3 a 3 c 11 g 3 t
NTE modified
                   ----- location ----- description
 type
```

```
modified link g-1 - g-2 P-thio modified link g-2 - t-3 P-thio modified link g-18 - g-19 P-thio modified link g-19 - g-20 P-thio
         1 ggtgcatcga tgcaggggg
            ______
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
CI
     MAN
SR
     CA
    STN Files: CA, CAPLUS
LC
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 72 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
     441364-86-9 REGISTRY
CN
     DNA, d(G-G-G-G-T-C-G-A-C-G-T-C-G-A-C-G-T-C-G-A-G-G-G-G-G-G-G-G) (9CI) (CA)
     INDEX NAME)
OTHER NAMES:
CN
     653: PN: WO02053141 SEQID: 1077 claimed DNA
FS
    NUCLEIC ACID SEQUENCE
SQL 27
NA
     3 a
         5 c 16 g
                       3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source | Reference
=======+============
Not Given|WO2002053141
         claimed
         SEQID 1077
SEQ
         1 ggggtcgacg tcgacgtcga ggggggg
           _____
HITS AT:
          1-27
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
LC
   STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA Caplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
       study); PRP (Properties); USES (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 73 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     434529-77-8 REGISTRY
RN
CN
    DNA, d(G-sp-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-sp-G) (9CI) (CA INDEX
    NAME)
FS
    NUCLEIC ACID SEQUENCE
SQL
    20
```

```
3 ma 3 c \sim 11 g \sim 3 t \sim .
NA
NTE modified
     ----- location ----- description
modified link g-1 - g-2 P-thio modified link g-19 - g-20 P-thio
        1 ggtgcatcga tgcagggggg
           HITS AT:
**RELATED SEOUENCES AVAILABLE WITH SEOLINK**
MF Unspecified
CI
    MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study)
             1 REFERENCES IN FILE CA (1907 TO DATE)
             1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 74 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    406966-35-6 REGISTRY
ŔŇ
    DNA, d(G-sp-G-sp-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-Sp-G-sp-G) (9CI) (CA)
    INDEX NAME)
    NUCLEIC ACID SEQUENCE
FS
SQL 20
NA 3 a 3 c 11 g 3 t
NTE modified
       ----- location ----- description
type
_______
modified link g-1 - g-2 P-thio modified link g-2 - t-3 P-thio modified link g-18 - g-19 P-thio modified link g-19 - g-20 P-thio
SEQ
        1 ggtgcatcga tgcaggggg
          _____ ====
HITS AT: 3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF Unspecified
  MAN
ÇI
SR
   CA
   STN Files: CA, CAPLUS
LC
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties); USES
      (Uses)
             1 REFERENCES IN FILE CA (1907 TO DATE)
             1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 75 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    406966-34-5 REGISTRY
RN
    CN
    (CA INDEX NAME)
FS
    NUCLEIC ACID SEQUENCE
SQL 20
    2 a 4 c 12 g 2 t
NA
```

NTE modified

```
_____
        ----- location ----- description
 type
_____
modified link g-1 - g-2 P-thio modified link g-2 - t-3 P-thio modified link g-16 - g-17 P-thio modified link g-17 - g-18 P-thio modified link g-18 - g-19 P-thio modified link g-19 - g-20 P-thio
SEO
        1 ggtgcaccgg tgcaggggg
            _____
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
   Unspecified
CI
    MAN
   CA
SR
LC
    STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties); USES
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 76 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    400186-59-6 REGISTRY
CN
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G) (9CI) (CA INDEX NAME)
OTHER NAMES:
ĊN
    71: PN: WO0211761 PAGE: 8 claimed sequence
FS
    NUCLEIC ACID SEQUENCE
SQL 19
NA
   3 a 3 c 10 g 3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source Reference
Not Given W02002011761
         claimed PAGE
         8
SEQ
        1 ggtgcatcga tgcaggggg
           _____
HITS AT:
         3-19
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
     MAN
SR
    CA
LC
    STN Files: CA, CAPLUS
DT.CA CAplus document type: Patent
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 77 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    400186-49-4 REGISTRY
```

```
DNA, d(G-G-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
CN
OTHER NAMES:
    60: PN: WO0211761 PAGE: 8 claimed sequence
CN
FS
    NUCLEIC ACID SEQUENCE
SQL
    20
                12 g
    2 a
          4 C
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
Not Given W02002011761
         claimed PAGE
SEQ
        1 ggtgcacegg tgcagggggg
            3 - 20
HITS AT:
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    Unspecified
MF
CI
    MAN
SR
    CĀ
    STN Files:
                 CA, CAPLUS
LÇ
DT.CA CAplus document type: Patent
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 78 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
     400186-47-2 REGISTRY
    DNA, d(G-G-T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
CN
OTHER NAMES:
CN
     57: PN: WO0211761 PAGE: 8 claimed sequence
FS
    NUCLEIC ACID SEQUENCE
SQL
    20
NA
     2 a
          4 C
                12 g
                       2 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
______
Not Given W02002011761
         claimed PAGE
         8
SEQ
         1 ggtgcgtcga cgcagggggg
            HITS AT:
          3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
ČΙ
     MAN
SR
     CA
LC
     STN Files:
                 CA, CAPLUS
DT.CA CAplus document type:
                             Patent
RL.P
       Roles from patents: BIOL (Biological study); PRP (Properties); USES
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
```

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L17 ANSWER 79 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN 400186-43-8 REGISTRY RNDNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI) (CA INDEX NAME) CN OTHER NAMES: 50: PN: WO0211761 PAGE: 8 claimed DNA NUCLEIC ACID SEQUENCE FS SQL 20 11 g 3 C ΝĀ 3 a PATENT ANNOTATIONS (PNTE): Sequence | Patent Reference Source Not Given W02002011761 claimed PAGE 18 1 ggtgcatcga tgcagggggg SEQ _____ 3-20 HITS AT: **RELATED SEQUENCES AVAILABLE WITH SEQLINK** Unspecified MFCI MAN SR CA CA, CAPLUS LC STN Files: DT.CA CAplus document type: Patent Roles from patents: BIOL (Biological study); PRP (Properties); USES RL.P (Uses) 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) ANSWER 80 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN L17 381261-19-4 REGISTRY RNCNU-A-U-A-U-A) (9CI) (CA INDEX NAME) OTHER NAMES: 522: PN: WO0193902 SEQID: 548 unclaimed DNA CN NUCLEIC ACID SEQUENCE FS 40 SQL 12 g 2 t 9 a 10 c PATENT ANNOTATIONS (PNTE): Sequence | Patent Reference Source _____ Not Given | WO2001093902 unclaimed SEQID 548 1 uauauauccc cccggtgcac cggtgcaggg gggauauaua SEO ----HITS AT: 16-33 Unspecified MF

CA, CAPLUS, USPATFULL

MAN

STN Files:

DT.CA CAplus document type: Patent

CA

CI SR

LC

```
RL.P. Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 81 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     381261-17-2 REGISTRY
RN
CN
    DNA, d(A-A-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
OTHER NAMES:
CN
     520: PN: WO0193902 SEQID: 546 unclaimed DNA
FS
    NUCLEIC ACID SEQUENCE
SQL 20
NA
    5 a
          3 c 9 q
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
Not Given | WO2001093902
         unclaimed
         SEQID 546
SEO
         1 aatgcatcga tgcaggggg
            HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
     CĀ
LC
    STN Files:
                 CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P
      Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 82 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     381261-08-1 REGISTRY
RN
CN
     DNA, d(U-C-A-A-C-G-U-U-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
                                                                      (CA
     INDEX NAME)
OTHER NAMES:
CN
    510: PN: WOO193902 SEQID: 536 unclaimed DNA
FS
    NUCLEIC ACID SEQUENCE
SQL 26
NA
    5 a
         5 C
                10 g
                       3 t
                             3 u
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
_______
Not Given | WO2001093902
         unclaimed
         SEQID 536
SEO
        1 ucaacguutg catcgatgca gggggg
                  == ======== ======
HITS AT:
          9-26
MF
    Unspecified
CI
    MAN
SR
    CA
LC
    STN Files:
                 CA, CAPLUS, USPATFULL
```

```
DT.CA CAplus document type: Patent
RL.P
       Roles from patents: PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
     ANSWER 83 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
     381261-07-0 REGISTRY
     DNA, d(U-C-A-A-C-G-U-U-A-A-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9CI)
CN
                                                                            (CA
     INDEX NAME)
OTHER NAMES:
CN
     509: PN: WO0193902 SEQID: 535 unclaimed DNA
     NUCLEIC ACID SEQUENCE
FS
SQL
    28
NA
     7 a
           5 c
                 10 g
                      3 t
                              3 u
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
______
Not Given WO2001093902
         unclaimed
         SEQID 535
SEQ
         1 ucaacguuaa tgcatcgatg caggggg
                     _____
HITS AT:
           11-28
MF
     Unspecified
CI
     MAN
SR
     CA
LC
     STN Files:
                 CA, CAPLUS, USPATFULL
DT.CA Caplus document type: Patent
       Roles from patents: PRP (Properties)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 84 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     381261-06-9 REGISTRY
RN
      DNA, \quad d\left(U-C-A-A-C-G-U-U-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G\right) \quad (9CI) 
CN
                                                                     (CA INDEX
     NAME)
OTHER NAMES:
CN
     508: PN: WO0193902 SEOID: 534 unclaimed DNA
FS
     NUCLEIC ACID SEQUENCE
SQL
     25
NA
     5 a
          5 ¢
                9 g
                      3 t
                            3 u
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
_____
Not Given W02001093902
         unclaimed
         SEQID 534
SEQ
         1 ucaacguutg catcgatgca ggggg
                   HITS AT:
          9-25
MF
     Unspecified
CI
    MAN
SR
     ĊA
LC
     STN Files:
                 CA, CAPLUS, USPATFULL
```

```
DT.CA CAplus document type: Patent
        Roles from patents: PRP (Properties)
 RL.P
                1 REFERENCES IN FILE CA (1907 TO DATE)
                1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 L17 ANSWER 85 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
      381261-05-8 REGISTRY
 ŔŃ
 CN
      DNA, \quad d(U-C-A-A-C-G-U-U-G-G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G-G) \quad (9CI)
      (CA INDEX NAME)
 OTHER NAMES:
      507: PN: WO0193902 SEQID: 533 unclaimed DNA
      NUCLEIC ACID SEQUENCE
 FS
 SOL 29
 NA
      5 a
            5 C
                  13 g
                         3 t
                               3 u
 PATENT ANNOTATIONS (PNTE):
 Sequence | Patent
 Source
          Reference
 __________
 Not Given W02001093902
           unclaimed
           SEQID 533
 SEO
          1 ucaacguugg gtgcatcgat gcaggggg
                        -----
 HITS AT:
            12-29
 MF
      Unspecified
 CI
      MAN
 SR
      CA
 LC
      STN Files:
                   CA, CAPLUS, USPATFULL
 DT.CA CAplus document type: Patent
        Roles from patents: PRP (Properties)
                1 REFERENCES IN FILE CA (1907 TO DATE)
                1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 L17 ANSWER 86 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
 RN
      381261-01-4 REGISTRY
 CN
      DNA, d(U-C-A-A-C-G-U-U-G-G-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-G) (9C1) (CA
      INDEX NAME)
 OTHER NAMES:
 ÇN
      503: PN: WO0193902 SEQID: 529 unclaimed DNA
 FS
      NUCLEIC ACID SEQUENCE
 SQL
      28
 NA
      4 a
                  13 g
                         2 t
           6 c
 PATENT ANNOTATIONS (PNTE):
 Sequence | Patent
 Source
          Reference
 ---------------
 Not Given W02001093902
           unclaimed
           SEQID 529
 SEQ
          1 ucaacguugg tgcaccggtg cagggggg
                       ------
 HITS AT:
            11-28
 MF
      Unspecified
 CI
      NAM
 SR
      CA
 LC
      STN Files:
                   CA, CAPLUS, USPATFULL
```

```
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
RL.P
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 87 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     381260-99-7 REGISTRY
RN
     DNA, d(U-C-A-A-C-G-U-U-G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G) (9C1)
CN
     INDEX NAME)
OTHER NAMES:
     501: PN: WO0193902 SEQID: 527 unclaimed DNA
CN
FS
    NUCLEIC ACID SEQUENCE
SQL 28
NA
     5 a
          5 C
               12 g
                       3 t
                             3 u
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
______
Not Given W02001093902
         unclaimed
         SEQID 527
SEQ
        1 ucaacguugg tgcatcgatg cagggggg
                     ______ ___
HITS AT:
          11-28
MF
    Unspecified
CI
    MAN
SR
    CA
                 CA, CAPLUS, USPATFULL
LĊ
    STN Files:
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 88 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     381260-42-0 REGISTRY
RN
CN
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-G-G-G-C-A-G-C-G-U-U-C-U-C)
     (9CI) (CA INDEX NAME)
OTHER NAMES:
CN
    437: PN: WO0193902 SEQID: 463 unclaimed DNA
FS
    NUCLEIC ACID SEQUENCE
SOL 32
NA
    4 a
          7 c 14 g
                     3 t
                             4 u
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
        Reference
Not Given | W02001093902
         unclaimed
         SEQID 463
SEO
        1 ggtgcatéga tgcaggggg ucgagcguuc uc
            _____
HITS AT:
          3-20
MF
    Unspecified
CI
    NAM
SR
    CA
LC
    STN Files: CA, CAPLUS, USPATFULL
```

Nguyen 10/068160

Page 50

```
DT.CA CAplus document type: Patent
      Roles from patents: PRP (Properties)
RL.P
             1 REFERENCES IN FILE CA (1907 TO DATE)
             1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 89 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    366065-16-9 REGISTRY
RN
CN
    (CA INDEX NAME)
FS
    NUCLEIC ACID SEQUENCE
SOL 20
NA 3 a 3 c 11 g
NTE modified
type
               ----- location ----- description
------
         ------
modified link g-1 - g-2 P-thio modified link g-2 - t-3 P-thio modified link g-16 - g-17 P-thio modified link g-17 - g-18 P-thio modified link g-18 - g-19 P-thio modified link g-19 - g-20 P-thio
SEO
        1 ggtgcatcga tgcaggggg
           ____________
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
LC
    STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties); USES
      (Uses)
             1 REFERENCES IN FILE CA (1907 TO DATE)
             1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 90 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    350271-18-0 REGISTRY
RN
    DNA, d(G-sp-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-sp-G) (9CI) (CA INDEX NAME)
CN
FS
    NUCLEIC ACID SEQUENCE
SQL 19
NA
    3 a 3 c 10 g 3 t
NTE
         ----- location -----
                                          description
1 ggtgcatcga tgcaggggg
           -------
HITS AT:
         3-19
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
LC
    STN Files: CA, CAPLUS, TOXCENTER
```

```
CAplus document type: Patent
DT.CA
RL.P
     Roles from patents: BIOL (Biological study); PRP (Properties); USES
     (Uses)
            1 REFERENCES IN FILE CA (1907 TO DATE)
           1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 91 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    350271-08-8 REGISTRY
RN
ÇN
    DNA, d(G-sp-G-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G-Sp-G) (9CI)
                                                  (CA INDEX
    NAME)
FS
   NUCLEIC ACID SEQUENCE
SQL 20
    2 a 4 c 12 g
NA
                  2 t
NTE
            ----- location ----- description
1 ggtgcaccgg tgcaggggg
         ------
HITS AT:
        3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
   Unspecified
CI
   MAN
SR
   CA
LĊ
   STN Files:
              CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
     Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
     (Uses)
           1 REFERENCES IN FILE CA (1907 TO DATE)
           1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 92 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    350271-06-6 REGISTRY
RN
CN
   DNA, d(G-sp-G-T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G-sp-G) (9CI) (CA INDEX
   NAME)
FS
   NUCLEIC ACID SEQUENCE
SQL 20
NΑ
   2 a 4 c 12 g 2 t
----- location ----- description
1 ggtgcgtcga cgcaggggg
         HITS AT:
        3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
   Unspecified
CI
   MAN
SR
   ĊA
  STN Files:
LC
             CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PRP (Properties); USES
```

```
(Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 93 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    350271-02-2 REGISTRY
CN
    DNA, d(G-sp-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G-Sp-G) (9CI) (CA INDEX
    NAME)
    NUCLEIC ACID SEQUENCE
FS
SQL 20
    3 a 3 c 11 g 3 t
NA
NTE
               ----- location ----- description
modified link g-1 - g-2 P-thio modified link g-19 - g-20 P-thio
        1 ggtgcatcga tgcagggggg
SEO
           HITS AT:
          3 - 20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    Unspecified
MF
CI
    MAN
    CA
SR
LC
    STN Files: CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
RL.P
      (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 94 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    350270-01-8 REGISTRY
    DNA, d(C-T-C-G-T-C-G-A-C-G-A-G-C-G-G-G-G-T-T-G-A-T-G-G-A-C-C-G-G) (9C1)
CN
     (CA INDEX NAME)
OTHER NAMES:
    10: PN: WO0149845 PAGE: 26 unclaimed sequence
CN
FS
    NUCLEIC ACID SEQUENCE
SOL 29
NA
    4 a 7 c 13 g 5 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source | Reference
Not Given WO2001049845
         unclaimed
         PAGE 26
        1 ctcgtcgacg agcggggttg atggaccgg
          -----
HITS AT:
         1-17
MF
    Unspecified
CI
    MAN
SR
    STN Files: CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)
```

Nguyen 10/068160

```
1 REFERENCES IN FILE CA (1907 TO DATE)
                1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 95 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     334074-92-9 REGISTRY
RN
     DNA, d(G-sp-G-sp-T-G-C-A-C-C-G-G-T-G-C-A-G-G-sp-G-sp-G-sp-G-sp-G) (9CI)
CN
     (CA INDEX NAME)
FS
     NUCLEIC ACID SEQUENCE
SOL 20
NA
     2 a 4 c 12 g
NTE
                  ----- location ----- description
 type
_____
modified link g-1 - g-2 P-thio modified link g-2 - t-3 P-thio modified link g-16 - g-17 P-thio modified link g-17 - g-18 P-thio modified link g-18 - g-19 P-thio modified link g-19 - g-20 P-thio
          1 ggtgcaccgg tgcagggggg
SEQ
              ______
HITS AT:
            3-20
**RELATED SEOUENCES AVAILABLE WITH SEQLINK**
MF
     Unspecified
     MAN
CI
SR
     CA
LC
     STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study)
                1 REFERENCES IN FILE CA (1907 TO DATE)
                1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 96 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
     334074-91-8 REGISTRY
     DNA, d(G-sp-G-sp-T-G-C-A-T-C-G-A-T-G-C-A-G-G-sp-G-sp-G-sp-G-sp-G) (9CI)
CN
     (CA INDEX NAME)
     NUCLEIC ACID SEQUENCE
FS
SQL 20
NA
     3 a 3 c 11 g 3 t
            ----- location ----- description
_____
modified link g-1 - g-2 P-thio modified link g-2 - t-3 P-thio modified link g-16 - g-17 P-thio modified link g-17 - g-18 P-thio modified link g-18 - g-19 P-thio modified link g-19 - g-20 P-thio
          1 ggtgcatcga tgcagggggg
             =================
HITS AT:
            3-20
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF

CI

Unspecified

MAN

```
SR
    CA
    STN Files: CA, CAPLUS
LC
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 97 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
     332956-63-5 REGISTRY
    CN
     G-sp-G) (9CI) (CA INDEX NAME)
    NUCLEIC ACID SEQUENCE
FS
SOL 27
NA
     3 a 5 c 16 g 3 t
NTE
        ----- location ----- description
modified link g-1 - g-2 P-thio modified link g-22 - g-23 P-thio modified link g-23 - g-24 P-thio modified link g-24 - g-25 P-thio modified link g-25 - g-26 P-thio
        1 ggggtcgacg tcgacgtcga gggggg
          HITS AT:
          1-27
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
    CA
LC STN Files: CA, CAPLUS, TOXCENTER DT.CA Caplus document type: Patent
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
       (Uses)
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 98 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
     331880-34-3 REGISTRY
RN
CN
     DNA, d(G-G-G-G-T-C-G-A-C-G-T-C-G-A-C-G-T-C-G-A-G-G-G-G-G-G-G-G) (9CI)
     INDEX NAME)
OTHER NAMES:
CN
    1083: PN: WO0122972 SEQID: 1077 claimed DNA
FS
    NUCLEIC ACID SEQUENCE
SQL 27
    3 a 5 c 16 g 3 t
NA
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
=======+===========
Artificial W02001022972
sequence | claimed
          SEQID 1077
SEO
         1 ggggtcgacg tcgacgtcga ggggggg
          HITS AT:
```

1-27

```
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CÏ
    MAN
SR
    CA
                 CA, CAPLUS, TOXCENTER, USPATFULL
LC
    STN Files:
DT.CA CAplus document type: Patent
      Roles from patents: BIOL (Biological study); PRP (Properties); USES
       (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17
    ANSWER 99 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    302865-85-6 REGISTRY
CN
    DNA, d(G-G-T-G-G-A-T-C-G-A-T-C-C-A-G-G-G-G-G-G) (9CI)
                                                          (CA INDEX NAME)
OTHER NAMES:
    37: PN: WO0061151 SEQID: 137 claimed DNA
    NUCLEIC ACID SEQUENCE
SQL 20
    3 a
          3 C
                11 q
NA
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
         Reference
Source
Synthetic | WO2000061151
         claimed
         SEQID 137
SEO
         1 qqtqqatcqa tccaqqqqqq
            ------
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    Unspecified
CI
    MAN
ŞR
    CA
LC
    STN Files:
                 CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
       study); PRP (Properties); USES (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 100 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    302865-84-5 REGISTRY
CN
    DNA, d(G-G-T-A-T-A-T-C-G-A-T-A-T-A-G-G-G-G-G) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN
    36: PN: WO0061151 SEQID: 136 claimed DNA
FS
    NUCLEIC ACID SEQUENCE
SQL 20
    5 a
          1 c
                9 g
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
         Reference
Synthetic | WO2000061151
         claimed
         SEQID 136
```

```
SEQ
         1 ggtatatcga tatagggggg
            _____
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
     Unspecified
CI
    MAN
SR
     CA
     STN Files:
                 CA, CAPLUS, TOXCENTER
LC.
DT.CA CAplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
       study); PRP (Properties); USES (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 101 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
     301939-75-3 REGISTRY
     DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G) (9CI) (CA INDEX NAME)
CN
OTHER NAMES:
CN
     54: PN: W00061151 SEQID: 53 claimed DNA
    NUCLEIC ACID SEQUENCE
FS
SQL 19
    3 a
          3 c
                10 g
MА
                       3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
       Reference
Source
_____
Synthetic | WO2000061151
         claimed
         SEQID 53
         W02000061151
         claimed
         SEQID 73
SEO
        1 ggtgcatcga tgcaggggg
            ______
HITS AT:
          3-19
**RELATED SEOUENCES AVAILABLE WITH SEOLINK**
    Unspecified
CI
    MAN
SR
    STN Files:
                 CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
      study); PRP (Properties); USES (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 102 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
RN
    301939-65-1 REGISTRY
    DNA, d(G-G-T-G-C-A-C-C-G-G-T-G-C-A-G-G-G-G-G) (9CI) (CA INDEX NAME)
OTHER NAMES:
    43: PN: WO0061151 SEQID: 42 claimed DNA
CN
FS
    NUCLEIC ACID SEQUENCE
```

Nguyen

```
SQL 20
    2 a 4 c 12 q
NA
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
        Reference
---------
Synthetic | WO2000061151
         claimed
         SEQID 42
SEO
        1 ggtgcacegg tgcagggggg
            HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    Unspecified
MF
CI
    MAN
SR
    CA
LC
    STN Files: CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
      study); PRP (Properties); USES (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 103 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
L17
    301939-63-9 REGISTRY
RN
CN
    DNA, d(G-G-T-G-C-G-T-C-G-A-C-G-C-A-G-G-G-G-G) (9CI) (CA INDEX NAME)
OTHER NAMES:
    39: PN: WO0061151 SEQID: 39 claimed DNA
CN
    NUCLEIC ACID SEQUENCE
FS
SQL
    20
    2 a
        4 c 12 g
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
        Reference
=======+===========
Synthetic | WO2000061151
         claimed
         SEQID 39
        +-----
         WO2000061151
         claimed
         SEQID 41
SEQ
        1 ggtgcgtcga cgcaggggg
            -----
HITS AT:
          3-20
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
MF
    Unspecified
CI
    MAN
SR
LC
    STN Files:
               CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
      study); PRP (Properties); USES (Uses)
```

1 REFERENCES IN FILE CA (1907 TO DATE)

```
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 104 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    301939-59-3 REGISTRY
    DNA, d(G-G-T-G-C-A-T-C-G-A-T-G-C-A-G-G-G-G-G) (9CI) (CA INDEX NAME)
OTHER NAMES:
    32: PN: W00061151 SEQID: 32 claimed DNA
    NUCLEIC ACID SEQUENCE
SOL 20
NA
    3 a 3 c 11 q
                       3 t
PATENT ANNOTATIONS (PNTE):
Sequence | Patent
Source
        Reference
======+=========
Synthetic | WO2000061151
         claimed
         SEQID 32
        +-----
         W02000061151
         claimed
         SEQID 34
         W02000061151
         claimed
         SEQID 37
         |W02000061151
         claimed
         SEQID 38
         |W02000061151
         claimed
        SEQID 43
         W02000061151
         claimed
         |SEQID 72
SEO
        1 ggtgcatcga tgcagggggg
            _____
HITS AT:
          3-20
**RELATED SEOUENCES AVAILABLE WITH SEOLINK**
    Unspecified
CI
    MAN
ŞR
    STN Files:
                 CA, CAPLUS, TOXCENTER
DT.CA CAplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological
       study); PRP (Properties); USES (Uses)
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 105 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    115013-83-7 REGISTRY
CN
    Deoxyribonucleic acid, d(G-G-G-A-T-C-G-A-T-C-C-C-C-A-A-T-T-T-G-A),
     5'-(dihydrogen phosphate), homopolymer, complex with deoxyribonucleic acid
```

```
d(T-C-A-A-T-T-G-G-G-G-G-A-T-C-G-A-T-C-C-C) 5'-(dihydrogen phosphate)
    homopolymer (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
   DNA, d(T-C-A-A-A-T-T-G-G-G-G-G-A-T-C-G-A-T-C-C-C), 5'-(dihydrogen
    phosphate), homopolymer, complex with DNA d(G-G-G-A-T-C-G-A-T-C-C-C-C-A-
    A-T-T-T-G-A) 5'-(dihydrogen phosphate) homopolymer (1:1) (9CI)
    NUCLEIC ACID SEQUENCE
FS
SQL 42,21,21
    10 a 11 c 11 g
                     10 t
NA
NTE doublestranded (2)
    modified
______
            ----- location ----- description
_____
                                    5'-phosphate
modified base g-1
                                    5'-phosphate
modified base t-1[2]
homopolymer ?
homopolymer ?[2]
                                    unavailable
                                   unavailable
______
SEQ
       1 gggatcgatc ccccaatttg a
SEQ
       1 tcaaattggg ggategatcc c
         HITS AT:
        1-12, 10-21
    (C205 H259 N80 O127 P21)x . (C204 H259 N78 O127 P21)x
PCT Manual registration
SŘ
LC
    STN Files:
             CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study)
    CM
        1
    CRN 115013-82-6
    CMF (C204 H259 N78 O127 P21)x
    CCI PMS
        CM
            2
        CRN 114949-62-1
        CMF C204 H259 N78 O127 P21
        CCI MAN
    CM
        3
    CRN 115013-81-5
    CMF (C205 H259 N80 O127 P21)x
    CCI PMS
        CM
            4
        CRN 114949-64-3
        CMF C205 H259 N80 O127 P21
        CCI MAN
            1 REFERENCES IN FILE CA (1907 TO DATE)
            1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 106 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    115013-81-5 REGISTRY
CN
    DNA, d(T-C-A-A-A-T-T-G-G-G-G-G-A-T-C-G-A-T-C-C-C), 5'-(dihydrogen
    phosphate), homopolymer (9CI) (CA INDEX NAME)
```

```
OTHER CA INDEX NAMES:
    Deoxyribonucleic acid, d(T-C-A-A-A-T-T-G-G-G-G-G-A-T-C-G-A-T-C-C-C),
    5'-(dihydrogen phosphate), homopolymer
    NUCLEIC ACID SEQUENCE
SOL 21
NA
    5 a 5 c 6 g
NTE
----- location ----- description
modified base t-1
                                  5'-phosphate
homopolymer ?
                                 unavailable
SEQ
       1 tcaaattggg ggatcgatcc c
         ______
HITS AT: 1-12, 10-21
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    (C205 H259 N80 O127 P21)x
CI
    PMS, COM
PCT Manual registration
SR
    CM
        1
    CRN 114949-64-3
    CMF C205 H259 N80 O127 P21
    CCI MAN
L17 ANSWER 107 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
RN
    115013-80-4 REGISTRY
    Deoxyribonucleic acid, d(G-G-G-A-T-C-G-A-T-C-C-C-C-A-G-C-T-C-G-A),
CN
    5'-(dihydrogen phosphate), homopolymer, complex with deoxyribonucleic acid
    d(T-C-G-A-G-C-T-G-G-G-G-G-A-T-C-G-A-T-C-C-C) 5'-(dihydrogen phosphate)
    homopolymer (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
    DNA, d(T-C-G-A-G-C-T-G-G-G-G-A-T-C-G-A-T-C-C-C), 5'-(dihydrogen
    phosphate), homopolymer, complex with DNA d(G-G-G-A-T-C-G-A-T-C-C-C-C-A-
    G-C-T-C-G-A) 5'-(dihydrogen phosphate) homopolymer (1:1) (9CI)
FS
    NUCLEIC ACID SEQUENCE
SQL 42,21,21
    7 a 14 c 14 g
NTE doublestranded (2)
   modified
type ----- location ----- description
modified base g-1
                                   5'-phosphate
modified base t-1[2]
homopolymer ?
homopolymer ?[2]
                                  5'-phosphate
                                  unavailable
                                  unavailable
       1 gggategate ceccageteg a
SEQ
SEQ
       1 tcgagctggg ggatcgatcc c
         HITS AT:
         1-12, 10-21
MF (C204 H258 N81 O128 P21)x . (C202 H257 N80 O126 P21)x
PCT Manual registration
SR
```

The contract of the contract o

```
STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study)
    CM
       115013-79-1
        (C202 H257 N80 O126 P21)x
    CCI PMS
        CM
        CRN 114949-60-9
        CMF C202 H257 N80 O126 P21
        CCI MAN
    CM
        3
    CRN 115013-78-0
    CMF
        (C204 H258 N81 O128 P21)x
    CCI PMS
        CM
        CRN 114949-61-0
        CMF C204 H258 N81 O128 P21
        CCI MAN
            1 REFERENCES IN FILE CA (1907 TO DATE)
            1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L17 ANSWER 108 OF 108 REGISTRY COPYRIGHT 2004 ACS on STN
    115013-78-0 REGISTRY
RN
    DNA, d(T-C-G-A-G-C-T-G-G-G-G-A-T-C-G-A-T-C-C-C), 5'-(dihydrogen
    phosphate), homopolymer (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
    Deoxyribonucleic acid, d(T-C-G-A-G-C-T-G-G-G-G-G-A-T-C-G-A-T-C-C-C),
    5'-(dihydrogen phosphate), homopolymer
    NUCLEIC ACID SEQUENCE
SQL 21
NA
    3 a 6 c 8 g 4 t
----- location ----- description
modified base t-1
                                   5'-phosphate
homopolymer ?
                                   unavailable
1 tcgagctggg ggatcgatcc c
         HITS AT: 1-12, 10-21
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
    (C204 H258 N81 O128 P21)x
CI
    PMS, COM
PCT Manual registration
SR
    CA
    CM
        1
    CRN 114949-61-0
    CMF C204 H258 N81 O128 P21
```

10/068160 Page 62

=> fil capl uspatf toxcenter; s 117 FILE 'CAPLUS' ENTERED AT 14:55:40 ON 01 JUL 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATFULL' ENTERED AT 14:55:40 ON 01 JUL 2004 CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'TOXCENTER' ENTERED AT 14:55:40 ON 01 JUL 2004 COPYRIGHT (C) 2004 ACS

L18 57 L17

=> dup rem 118

PROCESSING COMPLETED FOR L18

L19 37 DUP REM L18 (20 DUPLICATES REMOVED) ANSWERS '1-31' FROM FILE CAPLUS

ANSWERS '32-37' FROM FILE USPATFULL

=> d ibib ed ab hitrn 1-37; fil hom

L19 ANSWER 1 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2003:417589 CAPLUS

DOCUMENT NUMBER: 139:5654

TITLE: TLR7 knockout nonhuman animal for screening synthetic

immunopotentiator

INVENTOR (S): Akira, Shizuo; Tomizawa, Hideyuki; Yamaoka, Takashi PATENT ASSIGNEE(S):

Japan Science and Technology Corporation, Japan;

Sumitomo Pharmaceuticals Company, Limited

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE ---------_____ WO 2003043588 A1 20030530 WO 2002-JP12234 20021122

W: CA, JP, US

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR

PRIORITY APPLN. INFO.: JP 2001-358295 A 20011122

ED Entered STN: 01 Jun 2003

It is intended to provide a nonhuman model animal unresponsive to a AB synthetic compd. which lacks a gene function encoding TLR7 recognizing an immunopotentiating synthetic compd. such as imidazoquinoline on its chromosome. A gene fragment of the whole gene sites including the intracellular domain and the transmembrane domain or a part thereof of a TLR7 gene obtained from a mouse gene library is substituted by a plasmid having poly(A) signal and a marker gene to construct a targeting vector. Then this targeting vector is linearized and transferred into embryo stem cells. The target embryo stem cells lacking the TLR7 gene function are microinjected into a mouse blastocyst to construct a chimeric mouse. Then this chimeric mouse is crossed with a wild type mouse to give a heterozygote mouse. Next, the heterozygote mouse is intercrossed and thus a TLR7 knockout mouse is obtained. The TLR7 knockout mice are useful for

Nguyen 10/068160

Page 63

screening substance that is capable of inhibiting or promoting immunopotentiation activity of synthetic imidazoquinoline compds. such as

Imiquimod and R-848.

IT 534784-78-6 use Registry # to match citation to sequence RL: PRP (Properties)

(unclaimed nucleotide sequence; tLR7 knockout nonhuman animal for screening synthetic immunopotentiator)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 2 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2003:377001 CAPLUS

DOCUMENT NUMBER: 138:390866

TITLE: Use of sterically stabilized cationic liposomes to

efficiently deliver CpG oligonucleotides in vivo Klinman, Dennis M.; Gursel, Ihsan; Ishii, Ken J.;

Kawakami, Koji; Joshi, Bharat H.; Puri, Raj K.

PATENT ASSIGNEE(S): Department of Health and Human Services, USA

SOURCE: PCT Int. Appl., 110 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

INVENTOR(S):

PAT	ENT	NO.		KI	MD	DATE			A.:	PPLI	CATI	ои ис	o.	DATE			
WO	2003	0403	08	A	2	2003	0515		W	20	02-U	S242	35	20020	729		
WO	WO 2003040308 A3		3	2003	1120												
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	ΒA,	BB,	ВĢ,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	ŪĠ,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	AZ,	BY,	KG,	KZ,	MD,	RU,
		TJ,	TM														
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	BG,
		CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MĊ,	NL,
		PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,
		NE,	SN,	TD,	TG												
צידדא	APP	T ₁ NI.	TNFO	. •				1	US 2	001-	3082	83P	P	2001	0727		

PRIORITY APPLN. INFO.:

US 2001-308283P P 20010727 US 2002-206407 A 20020725

OTHER SOURCE(S): MARPAT 138:390866

ED Entered STN: 16 May 2003

AB Sterically stabilized cationic liposomes (SSCL) encapsulating a K type oligodeoxynucleotide (ODN) including a CpG motif are disclosed. These SSCL encapsulating a K type ODN can be used to effectively deliver the ODN to a cell. A novel method is also disclosed for producing the SSCL encapsulating the K type ODN. Administration of the SSCL encapsulating a K type ODN and a chemotherapeutic agent, such as a chimeric mol. comprising a targeting mol. selected from the group consisting of an IL-13, and an anti-IL-13 receptor antibody; and an effector mol. selected from the group consisting of a Pseudomonas exotoxin, a Diphtheria toxin, and a radionuclide, can be used to dramatically reduce the growth of solid tumors.

RL: PRP (Properties)

(unclaimed nucleotide sequence; use of sterically stabilized cationic liposomes to efficiently deliver CpG oligonucleotides in vivo)

10/068160 Nguyen Page 64

L19 ANSWER 3 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3 2003:154198 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 138:203655 Oligonucleotides containing stimulatory TITLE: phosphorothicate motif and neutralizing motif for treating infections, allergies and cancers Krieg, Arthur M.; Vollmer, Jorg; Ulhman, Eugen INVENTOR(S): Coley Pharmaceutical Group, Inc., USA; Coley PATENT ASSIGNEE(S): Pharmaceutical G.m.b.H.; University of Iowa Research Foundation SOURCE: PCT Int. Appl., 115 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

English LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

APPLICATION NO. DATE KIND DATE PATENT NO. _ - - - - - -_____ A2 WO 2002-US26468 20020819 WO 2003015711 20030227 C2 A3 WO 2003015711 20030410 20040610 WO 2003015711 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 20030807 US 2002-224523 20020819 US 2003148976 A1 US 2001-313273P P 20010817

PRIORITY APPLN. INFO.: US 2002-393952P P 20020703

ED Entered STN: 28 Feb 2003

A class of immunostimulatory nucleic acids having at least two AB functionally and structurally defined domains is provided. The nucleic acids or oligodeoxynucleotides contg. a combination of a stimulating motif (i.e. CpG) and a neutralizing motif (i.e. CG-rich palindrome or CG repeats) are, surprisingly, highly immunostimulatory. This class of combination motif immunostimulatory nucleic acids characteristically activate B cells and NK cells, and also induce prodn. of type I interferon. The immunostimulatory nucleic acids or oligonucleotides are therefore, useful for treating a variety of immune related disorders such as cancer, infectious disease, and allergic disorders.

500239-90-7 IT

RL: PRP (Properties)

(unclaimed nucleotide sequence; oligonucleotides contg. stimulatory phosphorothicate motif and neutralizing motif for treating infections, allergies and cancers)

L19 ANSWER 4 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4

2003:6160 CAPLUS ACCESSION NUMBER:

138:88635 DOCUMENT NUMBER:

TITLE: Chimeric immunomodulatory compounds comprising nucleic

acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or

cancer

Fearon, Karen L.; Dina, Dino; Tuck, Stephen F. INVENTOR(S):

Dynavax Technologies Corporation, USA PATENT ASSIGNEE(S):

PCT Int. Appl., 224 pp. SOURCE:

Nguyen 10/068160 Page 65

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                   KIND DATE
                                         APPLICATION NO. DATE
                          _____
                                         -----
                                         WO 2002-US20025 20020621
                           20030103
    WO 2003000922
                     A2
    WO 2003000922
                     A3
                           20031023
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
            TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                         EP 2002-744589 20020621
     EP 1404873
                      A2
                           20040407
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.:
                                       US 2001-299883P P
                                                          20010621
                                       US 2002-375253P P
                                                          20020423
                                       WO 2002-US20025 W 20020621
```

ED Entered STN: 05 Jan 2003

AB The invention provides immunomodulatory compds. (CIC) and methods for immunomodulation of individuals using the immunomodulatory compds. The CIC comprises one or more nucleic acid moieties and one or more non-nucleic acid moieties such as dendrimer, polysaccharide, and crosslinked polysaccharide through phosphodiester, phosphorothioate ester, phosphorodithioate ester, and other linkages. The CIC is capable of stimulating prodn. of interferon .gamma. and .alpha. by human peripheral blood mononuclear cells, as well as human B cell proliferation. Endotoxin-free compns. comprising the CIC covalently or non-covalently conjugated with antigen and cationic microsphere are useful for treating disorders assocd. with IgE or Th2-type immune response such as allergy, asthma, infection, viral infection, idiopathic pulmonary fibrosis, and cancer.

IT 482663-88-7P 482663-89-8P

RL: PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)

L19 ANSWER 5 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5

ACCESSION NUMBER:

2003:950038 CAPLUS

DOCUMENT NUMBER:

140:26897

TITLE:

Chimeric immunomodulatory compounds comprising two or more nucleic acid moieties and non-nucleic acid spacer

INVENTOR(S):

Fearon, Karen L.; Dina, Dino; Tuck, Stephen F.

PATENT ASSIGNEE(S): USA

SOURCE:

U.S. Pat. Appl. Publ., 96 pp., Cont.-in-part of U.S.

Ser. No. 176,883. CODEN: USXXCO

Patent

DOCUMENT TYPE:

English

LANGUAGE:

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

```
KIND DATE
    PATENT NO.
                                          APPLICATION NO.
                                                           DATE
                                                          -----
     US 2003225016
                      A1
                           20031204
                                          US 2002-328578
                                                           20021223
    US 2003175731
                     A1
                           20030918
                                          US 2002-176883
                                                           20020621
    US 2003199466
                     A1
                           20031023
                                          US 2002-177826
                                                           20020621
PRIORITY APPLN. INFO.:
                                       US 2001-299883P P 20010621
                                       US 2002-375253P P 20020423
                                       US 2002-176883 A2 20020621
                                       US 2002-177826
                                                        A2 20020621
ED
    Entered STN: 05 Dec 2003
     The invention provides immunomodulatory compds. and methods for
AB
     immunomodulation of individuals using the immunomodulatory compds.
     immunomodulatory compds. comprise two or more nucleic acid moieties and a
     non-nucleic acid spacer moiety. The nucleic acid contains e.g. 5'-CG-3',
     5'-TCG-3', 5'-TCGA-3', 5'-TCGACGT-3', or 5'-TCGACGA-3'; and the
     non-nucleic acid is an oligoethylene glycol such as hexaethylene glycol.
     The chimeric compds. are incorporated into endotoxin-free compns.
     comprising antigen, pharmaceutically acceptable excipient, and optionally
     a cationic microsphere for modulating immune response.
    631926-11-9P 631926-12-0P
IT
    RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
        (chimeric immunomodulatory compds. comprising two or more nucleic acid
        moieties and non-nucleic acid spacer)
L19 ANSWER 6 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6
ACCESSION NUMBER:
                        2003:590824 CAPLUS
DOCUMENT NUMBER:
                        139:154891
TITLE:
                        Multiple CpG oligodeoxynucleotides and their use to
                        induce an immune response
                        Klinman, Dennis; Ishii, Ken; Verthelyi, Daniela
INVENTOR(S):
                        The Government of the U.S.A., the Secretary of the
PATENT ASSIGNEE(S):
                        Department of Health and Human Services, USA
```

SOURCE: U.S. Pat. Appl. Publ., 41 pp., Cont.-in-part of Appl.

No. PCT/US01/01122.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

ED

PA'	rent :	NO.		KI	ND :	DATE			A.	PPLI	CATI	ON NO	٥.	DATE			
US	US 2003144229 A			A:	1 :	2003	0731	US 2002-194035			5	20020712					
WO	WO 2001051500 A			A:	1 :	20010719			WO 2001-US1122				2	20010112			
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	ВG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,
		HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,
														PL,			
														UG,			
		YU,	ZA,	ZW,	AM,	AZ,	BY,	KG,	KZ,	MD,	RU,	ТJ,	TM				
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ΰĠ,	ZW,	ΑT,	BE,	CH,	CY,
		DE,	DK,	ES,	FΙ,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
PRIORITY APPLN. INFO.:														2000			
								1	WO 2	001-1	US11:	22	A2	2001	0112		
ATTITUDE CONTRACTOR (A)																	

OTHER SOURCE(S): MARPAT 139:154891

Entered STN: 01 Aug 2003

Compns. including multiple oligodeoxynucleotides with a CpG motif are AB disclosed herein. The compns. can include either D or K type oligodeoxynucleotides. These compns. are of use in inducing an immune Nguyen 10/068160 Page 67

response in a large percentage of the individuals in a population.

IT 569431-10-3 569431-14-7 569431-16-9

569431-26-1

RL: PRP (Properties)

(unclaimed nucleotide sequence; multiple CpG oligodeoxynucleotides and their use to induce an immune response)

L19 ANSWER 7 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7

ACCESSION NUMBER:

2003:355834 CAPLUS

DOCUMENT NUMBER:

138:362665

TITLE:

Immunostimulatory nucleic acids for the treatment of

asthma and allergy

INVENTOR (S):

Bratzler, Robert L.; Petersen, Deanna M.; Fouron, Yves

PATENT ASSIGNEE(S):

SOURCE:

U.S. Pat. Appl. Publ., 221 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
				
US 2003087848	A1	20030508	US 2001-776479	20010202
US 2004067902	A9	20040408		

PRIORITY APPLN. INFO.:

US 2000-179991P P 20000203

OTHER SOURCE(S):

MARPAT 138:362665

Entered STN: 09 May 2003

The invention involves administration of an immunostimulatory nucleic acid AB alone or in combination with an asthma/allergy medicament for the treatment or prevention of asthma and allergy in subjects. The combination of drugs are administered in synergistic amts. or in various dosages or at various time schedules. The invention also relates to kits and compns. concerning the combination of drugs.

IT 524084-27-3

RL: PRP (Properties)

(unclaimed nucleotide sequence; immunostimulatory nucleic acids for the treatment of asthma and allergy)

L19 ANSWER 8 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8

ACCESSION NUMBER:

2003:241991 CAPLUS

DOCUMENT NUMBER:

138:270283

TITLE:

Oligodeoxynucleotide and its use to induce an immune

response

INVENTOR(S):

Klinman, Dennis; Verthelyi, Daniela; Ishii, Ken; Mond.

James J.; Gursel, Mayda

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 52 pp., Cont.-in-part of U.S.

Ser. No. 958,713.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

2

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO. DATE	
-				
US 2003060440	Al	20030327	US 2002-68160 20020	206
PRIORITY APPLN. INFO.	:		US 1999-128898P P 19990	412
			US 2001-958713 A2 200110	011

ED Entered STN: 28 Mar 2003

D type CpG oligodeoxynucleotides are provided herein that include a AΒ

sequence represented by the following formula: 5'= X1X2X3Pu1Py2CpGPu3Py4X4X5X6(W)M(G)N-3' wherein the central CpG motif is unmethylated, Pu is a purine nucleotide, Py is a pyrimidine nucleotide, X and W are any nucleotide, M is any integer from 0 to 10, and N is any integer from 4 to 10. The oligodeoxynucleotides can activate immune cells, such as antigen-presenting cells or natural killer cell, and/or can stimulate prodn. of cytokines. Methods of using these oligodeoxynucleotides to induce an immune response are provided. The oligodeoxynucleotides can be used in treatment or amelioration of cancer, allergy, autoimmune disease, immunodeficiency, or infection. They can also be used to enhance the efficacy of vaccines.

IT 503572-62-1 503572-63-2 503572-65-4 503572-66-5 503572-69-8 503572-73-4

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(CpG oligodeoxynucleotides for immunostimulation and immunotherapy of various diseases)

IT 503575-76-6 503575-92-6 503575-93-7

503575-94-8

RL: PRP (Properties)

(unclaimed nucleotide sequence; oligodeoxynucleotide and its use to induce an immune response)

IT 503576-63-4 503576-64-5 503576-65-6

RL: PRP (Properties)

(unclaimed sequence; oligodeoxynucleotide and its use to induce an immune response)

L19 ANSWER 9 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 9

ACCESSION NUMBER:

2003:203398 CAPLUS

DOCUMENT NUMBER:

138:231727

TITLE:

Immunostimulatory nucleic acid for treatment of

non-allergic inflammatory diseases Krieg, Arthur M.; Berg, Daniel J.

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 229 pp.

CODEN: USXXCO

DOCUMENT TYPE:

INVENTOR(S):

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2003050268 A1 20030313 US 2002-112653 20020329

PRIORITY APPLN. INFO.: US 2001-279642P P 20010329

OTHER SOURCE(S): MARPAT 138:231727

ED Entered STN: 14 Mar 2003

The invention provides methods and compns. for using immunostimulatory nucleic acids to treat non-allergic inflammatory diseases. Non-allergic inflammatory diseases that may be treated according to the methods and products of the invention include psoriasis and inflammatory bowel disease. The invention further provides methods for augmenting a Th1 response to immunostimulatory nucleic acid involving inhibition of prostaglandin-mediated counter-regulatory response.

IT 501983-30-8

RL: PRP (Properties)

(unclaimed nucleotide sequence; immunostimulatory nucleic acid for treatment of non-allergic inflammatory diseases)

L19 ANSWER 10 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 10 ACCESSION NUMBER: 2003:878099 CAPLUS

DOCUMENT NUMBER:

140:58003

TITLE:

Antigenic Epitopes Fused to Cationic Peptide Bound to

Oligonucleotides Facilitate Toll-Like Receptor

9-Dependent, but CD4+ T Cell Help-Independent, Priming

of CD8+ T Cells

AUTHOR (S):

Schirmbeck, Reinhold; Riedl, Petra; Zurbriggen,

Rinaldo; Akira, Shizuo; Reimann, Joerg

CORPORATE SOURCE:

Department of Medical Microbiology and Immunology,

University of Ulm, Ulm, D-89081, Germany

Journal of Immunology (2003), 171(10), 5198-5207 SOURCE: CODEN: JOIMA3; ISSN: 0022-1767

PUBLISHER: American Association of Immunologists

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Entered STN: 10 Nov 2003 ED

AB A priority in current vaccine research is the development of adjuvants that support the efficient priming of long-lasting, CD4+ T cell help-independent CD8+ T cell immunity. Oligodeoxynucleotides (ODN) with immune-stimulating sequences (ISS) contg. CpG motifs facilitate the priming of MHC class I-restricted CD8+ T cell responses to proteins or peptides. We show that the adjuvant effect of ISS+ ODN on CD8+ T cell priming to large, recombinant Ag is enhanced by binding them to short, cationic (arginine-rich) peptides that themselves have no adjuvant activity in CD8+ T cell priming. Fusing antigenic epitopes to cationic (8- to 10-mer) peptides bound to immune-stimulating ISS+ ODN or non-stimulating NSS+ ODN (without CpG-contg. sequences) generated immunogens that efficiently primed long-lasting, specific CD8+ T cell immunity of high magnitude. Different MHC class I-binding epitopes fused to short cationic peptides of different origins showed this adjuvant activity. Quant. ODN binding to cationic peptides strikingly reduced the toxicity of the latter, suggesting that it improves the safety profile of the adjuvant. CD8+ T cell priming supported by this adjuvant was Toll-like receptor 9 dependent, but required no CD4+ T cell help. (with or without CpG-contg. sequences) are thus potent Th1-promoting adjuvants when bound to cationic peptides covalently linked to antigenic epitopes, a mode of Ag delivery prevailing in many viral nucleocapsids.

637803-30-6

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ODN-DC19 with CpG-contg.; oligodeoxynucleotides as potent T cell priming adjuvants when bound to cationic peptides fused to antigenic epitopes)

REFERENCE COUNT:

L19 ANSWER 11 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 11

ACCESSION NUMBER:

2002:521467 CAPLUS

DOCUMENT NUMBER:

137:88455

TITLE:

Inhibition of angiogenesis by nucleic acids

THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

INVENTOR(S):

Bratzler, Robert L.

PATENT ASSIGNEE(S):

Coley Pharmaceutical Group, Inc., USA

SOURCE:

PCT Int. Appl., 276 pp.

DOCUMENT TYPE:

CODEN: PIXXD2

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053141	A2	20020711	WO 2001-US48458	20011214
WO 2002053141	A3	20030522		

```
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2003055014
                             20030320
                                             US 2001-17995
                        A1
                                                               20011214
PRIORITY APPLN. INFO.:
                                          US 2000-255534P P 20001214
                          MARPAT 137:88455
OTHER SOURCE(S):
     Entered STN: 12 Jul 2002
ED
     The invention provides methods and products for inhibiting angiogenesis.
AB
     At least one antiangiogenic nucleic acid mol. is administered to a subject
     to prevent or treat unwanted angiogenesis. Non-nucleic acid
     antiangiogenic agents also can be administered.
     441364-86-9D, phosphorothicate linkage-contg.
IT
     RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
         (nucleic acids for inhibition of angiogenesis)
L19 ANSWER 12 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 12
                          2002:369804 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                          137:19096
TITLE:
                          Differential and competitive activation of human
                          immune cells by distinct classes of CpG
                          oligodeoxynucleotide
AUTHOR (S):
                          Gursel, Mayda; Verthelyi, Daniela; Gursel, Ihsan;
                          Ishii, Ken J.; Klinman, Dennis M.
CORPORATE SOURCE:
                          Section of Retroviral Research, Center for Biologics
                          Evaluation and Research, Food and Drug Administration,
                          Bethesda, MD, 20892, USA
                          Journal of Leukocyte Biology (2002), 71(5), 813-820
SOURCE:
                          CODEN: JLBIE7; ISSN: 0741-5400
PUBLISHER:
                          Federation of American Societies for Experimental
                          Biology
DOCUMENT TYPE:
                          Journal
LANGUAGE:
                          English
     Entered STN:
                    19 May 2002
     Synthetic oligodeoxynucleotides (ODN) expressing "CpG motifs" show promise
AB
     as immune adjuvants, antiallergens, anticancer, and immunoprotective
     agents. Two structurally distinct classes of CpG ODN have been identified
     that stimulate human PBMC. This work establishes that both types of ODN
     bind to and are internalized by the same individual B cells, NK cells, and
     monocytes. However, the intracellular localization of "D" and "K" ODN
     differs, as does their functional activity: "K" type ODN trigger monocytes
     and B cells to proliferate and secrete IL-6 and IgM, whereas "D" type ODN
     induce NK cells to produce IFN-.gamma. and monocytes to differentiate into
     CD83+/CD86+ dendritic cells. In monocytes, these two types of ODN (which
     differ in backbone compn. and CpG motif) cross-inhibit one another's
               Thus, different types of CpG ODN have distinct and in some
     cases incompatible effects on the same cells, a finding with important
     implications for the therapeutic use of these agents.
TT
     434529-77-8
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (differential and competitive activation of human immune cells by
        distinct classes of CpG oligodeoxynucleotide)
REFERENCE COUNT:
                          40
                                THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

L19 ANSWER 13 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 13

18

```
ACCESSION NUMBER:
                          2001:526086 CAPLUS
DOCUMENT NUMBER:
                           135:102560
TITLE:
                           Oligodeoxynucleotide and its use to induce an immune
                           response
INVENTOR(S):
                           Klinman, Dennis; Ishii, Ken; Verthelyi, Daniela
                           United States Dept. of Health and Human Services, USA
PATENT ASSIGNEE(S):
SOURCE:
                           PCT Int. Appl., 48 pp.
                           CODEN: PIXXD2
DOCUMENT TYPE:
                           Patent
LANGUAGE:
                           English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                       KIND
                                              APPLICATION NO. DATE
                              DATE
                                              -----
      ______
                       _ _ _ _
                              _____
                                             WO 2001-US1122 20010112
     WO 2001051500
                      A1
                              20010719
         SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, NE, SN, TD, TG
                                           AU 2001-27889
EP 2001-902045
     AU 2001027889
                        A5
                              20010724
                                                                20010112
     EP 1322655
                        A1
                              20030702
                                                                20010112
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, FI, CY, TR
     US 2003144229
                              20030731
                       A1
                                              US 2002-194035
                                                                20020712
PRIORITY APPLN. INFO.:
                                           US 2000-176115P P
                                                                20000114
                                           WO 2001-US1122
                                                             W 20010112
ED
     Entered STN: 20 Jul 2001
     The present invention provides a substantially pure or isolated
AB
     oligodeoxynucleotide (ODN) of at least about 10 nucleotides comprising
     different CpG sequences, as well as an oligodeoxynucleotide delivery
     complex and a pharmacol. compn. comprising an ODN or ODNs, and a method of
     inducing an immune response by administering such an ODN or ODNs to a
     host.
IT
     350271-02-2 350271-06-6 350271-08-8
     350271-18-0
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
         (oligodeoxynucleotide and its use to induce an immune response)
REFERENCE COUNT:
                          8
                                 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L19 ANSWER 14 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 14
ACCESSION NUMBER:
                          2001:507845 CAPLUS
DOCUMENT NUMBER:
                          135:103353
TITLE:
                          A novel human growth factor betacellulin splice
                          variant BTC-.beta. lacking C5-C6 disulfide loop, cDNA
                          sequence, diagnostic and therapeutic uses
INVENTOR(S):
                          Dunbar, Andrew Jeremy; Goddard, Christopher
                          Gropep Limited, Australia
PATENT ASSIGNEE(S):
SOURCE:
                          PCT Int. Appl., 59 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
LANGUAGE:
                          English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
```

ED AΒ

PRIORITY APPLN. INFO.:

Entered STN: 06 Apr 2001

ED

```
APPLICATION NO. DATE
    PATENT NO. KIND DATE
     ----- ----
                                        -----
                                                         -----
     WO 2001049845 A1 20010712
                                    WO 2001-AU10
                                                         20010105
        W: AU, CA, JP, US
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE, TR
PRIORITY APPLN. INFO.:
                                      AU 2000-4969
                                                      A 20000106
     Entered STN: 13 Jul 2001
     The invention relates to a polynucleotide sequence encoding a naturally
     occurring splice variant of human betacellulin (BTC), designated
     BTC-.beta.. The polynucleotide sequence of the BTC-.beta. lacks the
     sequence encoding the last C5-C6 disulfide loop of the epidermal growth
     factor CX7CX4C10CX1CX8C motif, which is normally present in the gene
     encoding the authentic BTC. The BTC-.beta. may be used for treating
     conditions mediated or modulated by ErbB receptors. The invention also
    provides methods for producing the BTC-.beta. by recombinant DNA
    techniques and antibodies against the BTC-.beta..
   350270-01-8
    RL: PRP (Properties)
        (unclaimed sequence; novel human growth factor betacellulin splice
       variant BTC-.beta. lacking C5-C6 disulfide loop, cDNA sequence,
       diagnostic and therapeutic uses)
REFERENCE COUNT:
                             THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
                             RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L19 ANSWER 15 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 15
ACCESSION NUMBER:
                       2001:247202 CAPLUS
DOCUMENT NUMBER:
                       134:279560
                       Methods related to immunostimulatory nucleic
TITLE:
                       acid-induced interferon
INVENTOR (S):
                       Hartmann, Gunther; Bratzler, Robert L.; Krieg, Arthur
                      Coley Pharmaceutical Group, Inc., USA; University of
PATENT ASSIGNEE(S):
                       Iowa Research Foundation
                       PCT Int. Appl., 168 pp.
SOURCE:
                       CODEN: PIXXD2
DOCUMENT TYPE:
                       Patent
LANGUAGE:
                       English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
    PATENT NO. KIND DATE APPLICATION NO. DATE
                   A2 20010405
A3 20011004
    WO 2001022990
                                       WO 2000-US26527 20000927
    WO 2001022990
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
            HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
            SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
            ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
            CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    EP 1220684
                    A2 20020710
                                        EP 2000-965477 20000927
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL
    JP 2003510290 T2 20030318
                                        JP 2001-526199
                                                         20000927
    ZA 2002001959 A
                          20030310
                                         ZA 2002-1959
                                                         20020308
```

US 1999-156147P P 19990927 WO 2000-US26527 W 20000927 AB Methods and compns. are provided for extending the clin. utility of IFN-.alpha. in the treatment of a variety of viral and proliferative disorders. Among other aspects, the invention provides methods which increase the efficacy of IFN-.alpha. treatment and reduce IFN-.alpha. treatment-related side effects. In addn., methods are provides for supporting the survival and for activating natural interferon producing cells (IPCs) in vitro without exogenous IL-3 or GM-CSF. The invention is based on the discovery that certain CpG and non-CpG ISNAs promote survival and stimulation of IPCs.

IT 332956-63-5

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(immunostimulatory nucleic acids for improving efficacy and reducing side effects of interferon therapy against viral infection and proliferative disease)

L19 ANSWER 16 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 16

ACCESSION NUMBER:

2001:247187 CAPLUS

DOCUMENT NUMBER:

134:275762

TITLE:

Immunostimulatory nucleic acids

INVENTOR(S):
PATENT ASSIGNEE(S):

Krieg, Arthur M.; Schetter, Christian; Vollmer, Jorg University of Iowa Research Foundation, USA; Coley

Pharmaceutical G.m.b.H.

SOURCE:

PCT Int. Appl., 338 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

```
PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                                                            DATE
                                           -----
     WO 2001022972
                       A2
                            20010405
                                           WO 2000-US26383 20000925
     WO 2001022972
                       A3
                            20020117
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            20020717
                       Α2
                                           EP 2000-965433
                                                             20000925
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
     BR 2000014236
                       Α
                            20021015
                                           BR 2000-14236
                                                             20000925
     TR 200200797
                       T2
                            20021021
                                           TR 2002-20020079720000925
     JP 2003510282
                       T2
                            20030318
                                           JP 2001-526182
                                                             20000925
    EE 200200158
                       Α
                            20030616
                                           EE 2002-158
                                                             20000925
    NZ 517929
                       Α
                            20040227
                                           NZ 2000-517929
                                                             20000925
     ZA 2002001963
                       Α
                            20030310
                                           ZA 2002-1963
                                                             20020308
    BG 106538
                       Α
                            20021229
                                           BG 2002-106538
                                                             20020321
    NO 2002001453
                       Α
                            20020527
                                           NO 2002-1453
                                                             20020322
    US 2003212026
                       A1
                            20031113
                                           US 2002-314578
                                                             20021209
PRIORITY APPLN. INFO .:
                                        US 1999-156113P P
                                                             19990925
                                        US 1999-156135P
                                                         P
                                                             19990927
                                        US 2000-227436P
                                                         P
                                                             20000823
                                        US 2000-669187
                                                         A1 20000925
                                        WO 2000-US26383 W 20000925
OTHER SOURCE(S):
                         MARPAT 134:275762
```

AB The invention relates to immunostimulatory nucleic acid compns. and methods of using the compns. The T-rich nucleic acids contain poly T sequences and/or have greater than 25% T nucleotide residues. The TG nucleic acids have TG dinucleotides. The C-rich nucleic acids have at least one poly-C region and/or greater than 50% C nucleotides. These immunostimulatory nucleic acids function in a similar manner to nucleic acids contg. CpG motifs. The invention also encompasses preferred CpG nucleic acids.

IT 331880-34-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(immunostimulatory nucleic acids)

L19 ANSWER 17 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 17

ACCESSION NUMBER:

2000:741930 CAPLUS

DOCUMENT NUMBER:

133:320986

TITLE:

Oligodeoxynucleotide and its use to induce an immune

response

INVENTOR(S):
PATENT ASSIGNEE(S):

Klinman, Dennis; Ishii, Ken; Verthelyi, Daniela

United States Dept. of Health and Human Services, USA

SOURCE:

PCT Int. Appl., 46 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                     KIND DATE
                                         APPLICATION NO. DATE
     WO 2000061151
                                          WO 2000-US9839
                      A2
                            20001019
                                                            20000412
     WO 2000061151
                      A3
                           20010426
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
             ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
            DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                      A2
                           20020206
                                          EP 2000-923283
                                                            20000412
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
PRIORITY APPLN. INFO.:
                                       US 1999-128898P P
                                                            19990412
                                       WO 2000-US9839
                                                        W 20000412
```

ED Entered STN: 20 Oct 2000

The present invention provides a substantially pure or isolated oligodeoxynucleotide of at least about 10 nucleotides comprising a sequence represented by either the formula: 5' N1N2N3T-CpG-WN4N5N6 3' wherein the central CpG motif is unmethylated, W is A or T, and N1, N2, N3, N4, N5, and N6 are any nucleotides, or the formula: 5' RY-CpG-RY 3' wherein the central CpG motif is unmethylated, R is A or G, and Y is C or T, as well as an oligodeoxynucleotide delivery complex and a pharmacol. compn. comprising the present inventive oligodeoxynucleotide, and a method of inducing an immune response by administering the present inventive oligodeoxynucleotide to a host. The oligodeoxynucleotides with phosphate or phosphorothicate backbone modification are useful for inducing cell-mediated and humoral immune response and are therefore useful for treatment of allergy, asthma, cancer, autoimmune disease, immunol. disease, infection, and immune deficiency.

IT 301939-59-3D, phosphate or phosphorothicate derivs.

Page 75

```
301939-63-9D, phosphate or phosphorothicate derivs.
 301939-65-1D, phosphate or phosphorothicate derivs.
 301939-75-3D, phosphate or phosphorothicate derivs.
 302865-84-5D, phosphate or phosphorothicate derivs.
 302865-85-6D, phosphate or phosphorothicate derivs.
 RL: BSU (Biological study, unclassified); PRP (Properties); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
     (oligodeoxynucleotide for use to induce immune response)
```

L19 ANSWER 18 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2004:142919 CAPLUS

DOCUMENT NUMBER:

140:198064

TITLE: INVENTOR(S): Particulate immunostimulant Van Nest, Gary; Tuck, Stephen

PATENT ASSIGNEE(S):

Dynavax Technologies Corporation, USA

SOURCE:

PCT Int. Appl., 90 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
APPLICATION NO. DATE
PATENT NO.
             KIND DATE
                      _____
_____
                                     WO 2003-US25415 20030812
WO 2004014322
               A2
                      20040219
   W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
       CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
       GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
       LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
       PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
       TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY,
       KG, KZ, MD, RU
   RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
       CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
       NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
       GW, ML, MR, NE, SN, TD, TG
```

PRIORITY APPLN. INFO.:

US 2002-402968P P 20020812

Entered STN: 22 Feb 2004 ED

The authors disclose immunomodulatory compns. which comprise a cationic condensing agent, an immunomodulatory compd., and a stabilizing agent. The compns. of the invention typically form particles which have increased immunomodulatory activity as compared to immunomodulatory compds. not formulated in the compns. of the invention. Also provided are methods of making the compns. and methods for therapeutic use of the compns. In one example, interferon-.gamma. release by human mononuclear cells was shown to be enhanced by the combination of CpG oligonucleotide, polymyxin B, and Tween-80.

IT 662376-92-3

RL: PRP (Properties)

(unclaimed sequence; particulate immunostimulant)

L19 ANSWER 19 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2004:451477 CAPLUS

TITLE:

SOURCE:

AB

Method of treating and preventing infections in

immunocompromised subjects with immunostimulatory CpG

oligonucleotides

INVENTOR(S):

Klinman, Dennis M.; Verthelyi, Daniela

PATENT ASSIGNEE(S):

The Government of the USA as Represented by the Secretary of the Dept. of Health & Human Services, USA

U.S. Pat. Appl. Publ., 64 pp.

DOCUMENT TYPE:

CODEN: USXXCO Patent

Page 76

English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. _____ --------______ US 2004105872 A1 20040603 US 2003-666022 20030917 PRIORITY APPLN. INFO.: US 2002-411944P P 20020918

Entered STN: 04 Jun 2004 ED

ÄΒ A method is disclosed herein for increasing an immune response to an opportunistic infection in an immunocompromised subject. In one embodiment, the subject is infected with a lentivirus. The method includes increasing an immune response to a pathogen using D oligodeoxynucleotides including a CpG motif. Addn. of K or D CpG oligodeoxynucleotides boosted the immunogenicity of the Engerix B hepatitis B virus vaccine to render refractory SIV-infected macaques responsive to vaccination.

IT700878-94-0 700878-95-1 700878-96-2

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nucleotide sequence, immunocompromised macaques response to HBV vaccine improvement with; immunostimulatory CpG oligonucleotides for treating and preventing infections in immunocompromised subjects)

698400-46-3 698400-48-5 698400-54-3 IT

> RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nucleotide sequence; immunostimulatory CpG oligonucleotides for treating and preventing infections in immunocompromised subjects)

698753-95-6 698754-76-6 698754-77-7

RL: PRP (Properties)

TT

(unclaimed nucleotide sequence; method of treating and preventing infections in immunocompromised subjects with immunostimulatory CpG oligonucleotides)

L19 ANSWER 20 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:511473 CAPLUS

DOCUMENT NUMBER: 139:79147

TITLE: Use of CpG oligodeoxynucleotides to induce

angiogenesis

INVENTOR(S): Klinman, Dennis M.; Zheng, Mei; Rouse, Barry T.

The Government of the United States of America as Represented by the Secretary of the Department of Health and Human Services, USA; The University of

Tennessee Research Corporation

SOURCE: PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATEN	T NO.		KII	ND.	DATE			A	PPLI	CATI	ON NO	٥.	DATE			
								-								
WO 20	030541	61	A:	2	2003	0703		W	0 20	02-U	S409	55	2002	1219		
WO 20	030541	61	A.	3	2003	1030										
W	: AE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	ВĠ,	BR,	BY,	BZ,	CA,	ÇH,	CN,
	CO,	CR,	CU,	CZ,	DΕ,	DK,	DM,	DZ,	EC,	EE,	ES,	ĒΙ,	GB,	GD,	GE,	GH,
	GM,	HR,	ΗU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	ΚP,	KR,	KZ,	LC,	LK,	LR,
	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	NZ,	OM,	PH,
	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,

ED

AB

TT

TITLE:

SOURCE:

```
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
              RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
              CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
              PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
              MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                           US 2001-343457P P 20011220
OTHER SOURCE(S):
                           MARPAT 139:79147
     Entered STN: 04 Jul 2003
     This disclosure provides a method of inducing prodn. of vascular
     endothelial growth factor by a cell. The method includes contacting the
     cell with a CpG oligonucleotide, thereby inducing the prodn. of vascular
     endothelial growth factor by the cell. The disclosure further provides a
     method inducing neovascularization in a tissue. This method includes
     comprising introducing a CpG oligodeoxynucleotide into an area of the
     tissue wherein the formation of new blood vessels is desired, thereby
     inducing neovascularization in the area of the tissue.
     552439-49-3 552439-50-6 552439-53-9
     552439-56-2 552439-61-9 552439-62-0
     552439-63-1
     RL: PRP (Properties)
         (unclaimed nucleotide sequence; use of CpG oligodeoxynucleotides to
        induce angiogenesis)
L19 ANSWER 21 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:
                           2003:202770 CAPLUS
DOCUMENT NUMBER:
                           138:236936
                           Differentiation of human monocytes into mature
                           functional dendritic cells with CpG
                           oligodeoxynucleotides
                           Klinman, Dennis M.; Gursel, Mayda; Verthelyi, Daniela
INVENTOR(S):
PATENT ASSIGNEE(S):
                           The Government of the United States of America as
                           Represented by the Secretary of Health and Human
                           Services, USA
                           PCT Int. Appl., 69 pp.
                           CODEN: PIXXD2
DOCUMENT TYPE:
                           Patent
LANGUAGE:
                           English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                       KIND
                              DATE
                                              APPLICATION NO.
                                                                DATE
     -----
                       _ _ _ _
                              _____
                                              -----
     WO 2003020884
                       A2
                              20030313
                                              WO 2002-US25732 20020813
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                           US 2001-312190P P 20010814
```

EDEntered STN: 14 Mar 2003 This disclosure relates to dendritic cells, specifically to the methods of AB generating mature dendritic cells using D type oligodeoxynucleotides including a CpG motif. The methods include contacting a dendritic cell precursor with a D ODN to generate a mature dendritic cell. In one specific, non-limiting example, the method includes contacting the

dendritic cell with an antigen. In another specific, non-limiting example, the method is a single step method wherein the D ODN is administered without other cytokines, such as GM-CSF and/or IL-4. These methods are of use both in vitro and in vivo. The findings disclosed herein document that mature DC can be rapidly and reproducibly generated by culturing PBMC or elutriated monocytes with D ODN in serum-free or conventional medium. These DC efficiently present antigen to autologous T cells in vitro and in vivo, and support the induction of Th1 biased immune responses. Without being bound by theory, the effect of D ODN on DC differentiation is dependent upon IFN.alpha. -secreting pDC being present during culture. Current results indicate that IFN.alpha. is necessary but not sufficient by itself to induce the differentiation of human monocytes into functionally active DC (Fig 2C). It is likely that functional differences between D and K type CpG ODN reflects differences in their recognition, uptake and/or processing by immune cells. These differences in uptake and activity have a structural basis. Whereas the immunostimulatory motif of a conventional ODN consists of a phosphorothioate TCGTT/A, the relevant motif in a D ODN consists of a phosphodiester purine/pyrimidine/CG/purine/pyrimidine hexamer (Verthelyi et al., Jlmmunol. 166: 2372-2377, 2001, which is incorporated herein by ref.). In addn., the hexamer of a D ODN is flanked by complementary bases that form a hairpin loop with the CpG dinucleotide at its apex - secondary structure that is absent from conventional CpG ODN. Finally, D but not K ODN are capped at the 3' end with a poly-G tail. This poly-G tail may interact with scavenger receptors on immune cells. D ODN reproducibly stimulated approx. 60 % of monocytes to differentiate into DC, as detd. phenotypically, histol. and functionally. The prodn. of IFN.alpha. by pDC present in culture contributed to this maturation (Fig 1A and 2B). generated by D ODN are functionally active, as they promote antigen-specific immune responses in vitro and in vivo (Fig 3, 4, 5 and 6).

IT 501729-67-5 501729-68-6

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses) (ODN nucleotide sequence; differentiation of human monocytes into mature functional dendritic cells with CpG oligodeoxynucleotides)

IT 501834-13-5 501834-14-6 501834-15-7 501834-16-8 501834-25-9 501834-30-6 501834-31-7 501834-32-8 501834-43-1 501834-44-2

RL: PRP (Properties)

(unclaimed nucleotide sequence; differentiation of human monocytes into mature functional dendritic cells with CpG oligodeoxynucleotides)

L19 ANSWER 22 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:306455 CAPLUS

DOCUMENT NUMBER: 139:159661

TITLE: CpG Oligodeoxynucleotides Protect Normal and

SIV-Infected Macaques from Leishmania Infection

AUTHOR(S): Verthelyi, Daniela; Gursel, Mayda; Kenney, Richard T.;

Lifson, Jeffrey D.; Liu, Shuying; Mican, Joan;

Klinman, Dennis M.

CORPORATE SOURCE: Center for Biologics Evaluation and Research, Section

of Retroviral Immunology, Food and Drug Administration, Bethesda, MD, 20892, USA

Taurenal of Tamuralans (2002) 180(0) 4888 4

Journal of Immunology (2003), 170(9), 4717-4723

CODEN: JOIMA3; ISSN: 0022-1767

PUBLISHER: American Association of Immunologists

DOCUMENT TYPE: Journal LANGUAGE: English ED Entered STN: 22 Apr 2003

SOURCE:

AB Oligodeoxynucleotides contg. CpG motifs (CpG ODNs) mimic microbial DNA and

activate effectors of the innate immune response, which limits the spread of pathogens and promotes an adaptive immune response. CpG ODNs have been shown to protect mice from infection with intracellular pathogens. Unfortunately, CpG motifs that optimally stimulate humans are only weakly active in mice, mandating the use of nonhuman primates to monitor the activity and safety of "human" CpG ODNs in vivo. This study demonstrates that CpG ODN treatment of rhesus macaques significantly reduces the severity of the lesions caused by a challenge with Leishmania: Leishmania superinfection is common in immunocompromised hosts, particularly those infected with HIV. This study shows that PBMCs from HIV-infected subjects respond to stimulation with CpG ODNs. To det. whether CpG ODNs can protect retrovirus-infected primates, SIV-infected macaques were treated with CpG ODNs and then challenged with Leishmania: Both lesion size and parasite load were significantly reduced in the CpG-treated animals. These findings support the clin. development of CpG ODNs as immunoprotective agents in normal and HIV-infected patients.

573722-80-2 573722-82-4 573722-83-5 IT

> RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(CpG oligodeoxynucleotides protect normal and SIV-infected macaques from Leishmania infection)

REFERENCE COUNT:

46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 23 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:975836 CAPLUS

DOCUMENT NUMBER:

140:75912

TITLE:

IL-10 regulates plasmacytoid dendritic cell response

to CpG-containing immunostimulatory sequences

AUTHOR(S): Duramad, Omar; Fearon, Karen L.; Chan, Jean H.;

Kanzler, Holger; Marshall, Jason D.; Coffman, Robert

L.; Barrat, Franck J.

CORPORATE SOURCE:

Dynavax Technologies Corporation, Berkeley, CA, USA

SOURCE:

Blood (2003), 102(13), 4487-4492 CODEN: BLOOAW; ISSN: 0006-4971

PUBLISHER:

American Society of Hematology

DOCUMENT TYPE:

Journal

LANGUAGE:

English

EDEntered STN: 15 Dec 2003

AB Immunostimulatory sequences (ISS) are short oligonucleotides contq. unmethylated cytosine-phosphate-guanine (CpG) dinucleotides that stimulate innate immune responses through Toll-like receptor-9 on B cells and plasmacytoid dendritic cell (PDC) precursors. The anti-inflammatory cytokine interleukin (IL)-10 is predicted to be a potent inhibitor of many of the activities described for ISS, and this may impact the use of ISS in disease states characterized by elevated IL-10. As the activities of ISS on PDCs are central to many clin. applications of ISS, we have studied the effects of IL-10 on PDC stimulation by 3 distinct classes of ISS. IL-10 inhibited cytokine prodn. and survival of ISS-activated PDCs; however, IL-12 induction was much more sensitive to inhibition than interferon (IFN) -. alpha. induction. Within the PDC population are cells that respond to ISS by producing either IL-12 or IFN-.alpha. but not both cytokines. IL-12-producing PDCs require costimulation through CD40 and appear more mature than IFN-.alpha.-producing PDCs. The 3 distinct classes of ISS differed with respect to induction of PDC maturation and T-cell priming capacity. IL-10 regulated PDC activation but did not inhibit the subsequent T-cell-priming ability of PDCs already activated by ISS.

TΥ 640803-43-6

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study)

(TL-10 regulates plasmacytoid dendritic cell response to CpG-contg. immunostimulatory sequences)

10/068160 Nguyen Page 80

REFERENCE COUNT:

THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS 27 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 24 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:229621 CAPLUS

DOCUMENT NUMBER:

139:20882

TITLE:

Response of peripheral blood mononuclear cells from

lupus patients to stimulation by CpG

oligodeoxynucleotides

AUTHOR (S):

Zeuner, R. A.; Klinman, D. M.; Illei, G.; Yarboro, C.;

Ishii, K. J.; Gursel, M.; Verthelyi, D.

CORPORATE SOURCE:

Center for Biologics Evaluation and Research/Food and

Drug Administration, Bethesda, MD, 20892, USA

SOURCE:

Rheumatology (Oxford, United Kingdom) (2003), 42(4),

563-569

CODEN: RUMAFK; ISSN: 1462-0324

PUBLISHER:

Oxford University Press

DOCUMENT TYPE:

Journal

English

LANGUAGE:

Entered STN: 25 Mar 2003 ED AB

Objectives: Increased levels of hypomethylated CpG-contg. DNA in sera from patients with systemic lupus erythematosus (SLE) may contribute to the initiation and/or perpetuation of the disease. This study characterizes the in vitro response of peripheral blood mononuclear cells (PBMC) from SLE patients to CpG DNA. Methods: Secretion of cytokines and IgM, cell proliferation and up-regulation of co-stimulatory mols. were evaluated in PBMC from SLE patients and normal controls after stimulation with synthetic oligodeoxynucleotides (ODN) contg. CpG motifs. Results: Up-regulation of co-stimulatory mols. and the secretion of interferon-.alpha. and interleukin-6 (IL-6) in response to CpG ODN was significantly reduced in monocytes and dendritic cells from SLE patients. Secretion of interferon-.gamma. by natural killer (NK) cells was also reduced. In contrast, the IgM and IL-10 response of B cells to CpG ODN was normal. Conclusion: Monocytes, dendritic cells and NK cells from SLE patients respond abnormally to CpG ODN stimulation, which may contribute to the cytokine imbalance obsd. in SLE.

537058-58-5 537058-59-6 IT

RL: BSU (Biological study, unclassified); BIOL (Biological study) (monocytes, dendritic cells and NK cells from lupus patients respond to CpG oligodeoxynucleotides stimulation and contribute to the cytokine imbalance)

REFERENCE COUNT:

29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 25 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:122818 CAPLUS

DOCUMENT NUMBER:

136:182447

TITLE: INVENTOR(S): Vaccine against respiratory syncytial virus (RSV) Mond, James J.; Prince, Gregory; Klinman, Dennis M. Henry M. Jackson Foundation for the Advancement of

PATENT ASSIGNEE(S):

Military Medicine, USA

PCT Int. Appl., 30 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002011761	A 2	20020214	WO 2001-US41633	20010809
WO 2002011761	A3	20030123		

W: AU, CA, JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE, TR

AU 2001085421 A5 20020218 AU 2001-85421 20010809 PRIORITY APPLN. INFO.: US 2000-224011P P 20000810

US 2000-229307P P 20000901

WO 2001-US41633 W 20010809

ED Entered STN: 15 Feb 2002

AB The present invention relates to a vaccine comprising adjuvanting oligodideoxynucleotides (ODNs), contg. at least one CpG dinucleotide and an antigen comprising a peptide sequence bearing at least one epitope of a Paramyxoviridae F protein. In one embodiment, the ODN is admixed or conjugated to an F protein from a respiratory syncytial virus (RSV). The vaccine of the invention may be administered directly to mucosal tissues of the respiratory tract by inhalation or intranasal administration.

IT 400186-43-8 400186-47-2 400186-49-4 400186-59-6

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(vaccine compns. comprising Paramyxoviridae F protein epitopes and immunostimulatory oligonucleotides against respiratory syncytial virus)

L19 ANSWER 26 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:737476 CAPLUS

DOCUMENT NUMBER:

CORPORATE SOURCE:

137:231323

TITLE:

CpG oligodeoxynucleotides induce human monocytes to

mature into functional dendritic cells

AUTHOR (S):

Gursel, Mayda; Verthelyi, Daniela; Klinman, Dennis M. Section of Retroviral Immunology, Center for Biologics

Evaluation and Research, Food and Drug Administration,

Bethesda, MD, 20892, USA

SOURCE:

European Journal of Immunology (2002), 32(9),

2617-2622

CODEN: EJIMAF; ISSN: 0014-2980 Wiley-VCH Verlag GmbH & Co. KGaA

PUBLISHER: DOCUMENT TYPE:

Journal

LANGUAGE:

English

ED Entered STN: 29 Sep 2002

AB Dendritic cells (DC) excel at presenting antigen to T cells and thus make a key contribution to the induction of primary and secondary immune responses. DC matured in vitro and pulsed with antigen show promise for the immunotherapy of cancer and infectious diseases. Synthetic oligonucleotides (ODN) expressing immunomodulatory "CpG motifs" were found

oligonucleotides (ODN) expressing immunomodulatory "CpG motifs" were found to boost APC function in mice. Current results demonstrate that the recently identified "D" type of CpG ODN stimulate human peripheral blood monocytes to mature into functionally active DC over 2-4 days. The transition from monocyte to DC is characterized by the upregulation of CD83, CD86, CD80, CD40 and the down-regulation of CD14. These DC support antigen-specific humoral and cellular responses in vitro and in vivo. The differentiation of these monocytes is mediated by plasmacytoid DC, which respond to D type ODN by secreting IFN-.alpha.. Since D type CpG motifs are present in bacterial and viral DNA, the maturation of monocytes into functional DC may reflect a physiol. response that can be harnessed therapeutically through the use of CpG ODN.

IT 459471-16-0 459471-17-1

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(CpG oligodeoxynucleotides induce human monocytes to mature into functional dendritic cells)

REFERENCE COUNT:

36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/068160 Nguyen Page 82

L19 ANSWER 27 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

2002:124395 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 136:293135

CpG oligodeoxynucleotides as vaccine adjuvants in TITLE:

primates

AUTHOR (S): Verthelyi, Daniela, Kenney, Richard T.; Seder, Robert

A.; Gam, Albert A.; Friedag, Brenda; Klinman, Dennis

CORPORATE SOURCE: Division of Viral Products, Center for Biologics

Evaluation and Research/Food and Drug Administration,

Bethesda, MD, 20892, USA

SOURCE: Journal of Immunology (2002), 168(4), 1659-1663

CODEN: JOIMA3; ISSN: 0022-1767

American Association of Immunologists PUBLISHER:

DOCUMENT TYPE: Journal LANGUAGE: English ED Entered STN: 17 Feb 2002

Synthetic oligodeoxynucleotides (ODN) contg. unmethylated CpG motifs act AB as immune adjuvants in mice, boosting the humoral and cellular response to coadministered Ags. CpG ODN that stimulate human PBMC are only weakly active in mice. Thus, alternative animal models are needed to monitor the activity and safety of "human" CpG ODN in vivo. This work demonstrates that rhesus macaques recognize and respond to the same CpG motifs that trigger human immune cells. Coadministering CpG ODN with heat-killed Leishmania vaccine provided significantly increased protection of macaques against cutaneous Leishmania infection. These findings indicate that rhesus macaques provide a useful model for studying the in vivo activity of human CpG motifs, and that ODN expressing these motifs act as strong immune adjuvants.

IT 406966-34-5 406966-35-6

> RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(CpG oligodeoxynucleotides as vaccine adjuvants in primates)

REFERENCE COUNT:

THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS 38 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 28 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:903912 CAPLUS

DOCUMENT NUMBER:

136:52708

TITLE:

Immunostimulatory RNA/DNA hybrid molecules

INVENTOR(S): Mond, James J.; Flora, Michael; Klinman, Dennis M.

PATENT ASSIGNEE(S): Biosynexus Incorporated, USA

SOURCE:

PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DATE '	APPLICATION NO. DATE					
WO 2001093902	A2 20011213	WO 2001-US18276 20010607					
WO 2001093902	A3 20020418						
W: AE, AG,	AL, AM, AT, AU,	AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,					
CO, CR,	CU, CZ, DE, DK,	DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,					
GM, HR,	HU, ID, IL, IN,	IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,					
LS, LT,	LU, LV, MA, MD,	MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,					
RO, RU,	SD, SE, SG, SI,	SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,					
VN, YU,	ZA, ZW, AM, AZ,	BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM,	KE, LS, MW, MZ,	SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,					
DE, DK,	ES, FI, FR, GB,	GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,					
BJ. CF.	CG. CT. CM. GA.	GN. GW. MI. MR. NE. SN. TD. TG					

EP 2001-941989 EP 1292331 A2 20030319 20010607 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 2004052763 A1 20040318 US 2001-874991 20010607 PRIORITY APPLN. INFO.: US 2000-209797P P 20000607 WO 2001-US18276 W -20010607

ED Entered STN: 14 Dec 2001

The present invention provides immunol. compns. and methods relating to AB immunostimulatory intra-strand DNA/RNA hybrid oligonucleotides (HDRs), optimally encoding one or more CpG motif, which may be an unmethylated CpG motif. Administration of these compds., alone or in the context of one or more target antigens, promotes innate and antigen specific immunities.

381260-42-0 381260-99-7 381261-01-4 TT 381261-05-8 381261-06-9 381261-07-0 381261-08-1 381261-17-2 381261-19-4

RL: PRP (Properties)

(unclaimed nucleotide sequence; immunostimulatory RNA/DNA hybrid mols.)

L19 ANSWER 29 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

2001:125171 CAPLUS ACCESSION NUMBER:

134:294478 DOCUMENT NUMBER:

Human peripheral blood cells differentially recognize TITLE:

and respond to two distinct CpG motifs

Verthelyi, Daniela; Ishii, Ken J.; Gursel, Mayda; AUTHOR (S):

Takeshita, Fumihiko; Klinman, Dennis M.

Section of Retroviral Research, Center for Biologics CORPORATE SOURCE:

Evaluation and Research, Food and Drug Administration,

Bethesda, MD, 20892, USA

Journal of Immunology (2001), 166(4), 2372-2377 SOURCE:

CODEN: JOIMA3; ISSN: 0022-1767

PUBLISHER: American Association of Immunologists

DOCUMENT TYPE: Journal English LANGUAGE: Entered STN: 21 Feb 2001 ED

Oligodeoxynucleotides (ODN) that contain unmethylated CpG dinucleotides AB trigger a strong innate immune response in vertebrates. CpG ODN show promise as vaccine adjuvants, anti-allergens, and immunoprotective agents in animal models. Their transition to clin. use requires the identification of motifs that are optimally stimulatory in humans. Anal. of hundreds of novel ODN resulted in the identification and characterization of two structurally distinct "clusters" of immunostimulatory CpG ODN. One cluster ("D") preferentially stimulates IFN-.gamma. prodn. by NK cells, whereas the other ("K") stimulates cell proliferation and the prodn. of IL-6 and IgM by monocytes and B cells. The distinct immunostimulatory properties of K and D ODN can improve the design of CpG-based products to achieve specific therapeutic goals.

TT 334074-91-8 334074-92-9

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(two distinct CpG motifs in stimulation of human peripheral blood cells)

REFERENCE COUNT: THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 30 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:129322 CAPLUS

DOCUMENT NUMBER: 135:302807

TITLE: Response of porcine peripheral blood mononuclear cells

to CpG-containing oligodeoxynucleotides

Kamstrup, S.; Verthelyi, D.; Klinman, D. M. AUTHOR (S):

CORPORATE SOURCE: Department for Pathobiology and Diagnostics, Danish Veterinary Institute for Virus Research, Kalvehave, Page 84

Lindholm, DK-4771, Den.

Veterinary Microbiology (2001), 78(4), 353-362 SOURCE:

CODEN: VMICDQ; ISSN: 0378-1135

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English ED Entered STN: 21 Feb 2001

Exposure to bacterial DNA generates a "danger signal" that stimulates AB cellular elements of the mammalian immune system to proliferate and/or secrete cytokines. Stimulation is critically dependent on hexameric motifs that contain an unmethylated CpG dinucleotide: these are commonly found in bacterial but not vertebrate DNA. Different motifs are optimally stimulatory in different species. This work examines whether oligodeoxynucleotides (ODNs) contg. CpG motifs stimulate peripheral blood mononuclear cells from pigs. Results show that pigs respond to CpG ODN by proliferating and secreting IL-6, IL-12 and TNF-.alpha.. By screening a large panel (>100) of ODNs, the palindromic hexamer 'ATCGAT' was identified as being optimally active in all animals examd. (N=10). These findings are the first to establish the immunostimulatory activity of CpG ODN in pigs, and suggest that the therapeutic uses envisioned for these ODNs (as vaccine adjuvants and immunoprotective agents) may be applicable to husbandry animals.

IT366065-16-9

AUTHOR(S):

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(response of porcine peripheral blood mononuclear cells to CpG-contg. oligodeoxynucleotides)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 31 OF 37 CAPLUS COPYRIGHT 2004 ACS on STN

1988:418981 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 109:18981

TITLE: Base sequence effects in double-helical DNA. III.

> Average properties of curved DNA Maroun, Rachid C.; Olson, Wilma K.

CORPORATE SOURCE: Dep. Chem., Rutgers State Univ. New Jersey, New

Brunswick, NJ, 08903, USA

SOURCE: Biopolymers (1988), 27(4), 585-603

CODEN: BIPMAA; ISSN: 0006-3525

DOCUMENT TYPE: Journal LANGUAGE: English EDEntered STN: 22 Jul 1988

AΒ The matrix-generator methods set forth in the preceding paper for treating rodlike DNA are adapted here to the calcn. of av. chain extension, macroscopic flexibility, and terminal residue orientation in curved duplexes. The different characteristics of curved vs. rodlike chains are illustrated with the hypothetical poly[d(A5G5)] .cntdot. poly[d(T5C5)] duplex. The curved helix is both more compact and macroscopically stiffer than either the poly(dA) .cntdot. poly(dT) or the poly(dG) .cntdot. poly(dC) chain. The calcns. were also extended to simple repetitive DNA sequences generated by synthetic ligation studies and the computed av. chain properties compared with obsd. gel mobilities. The predicted chain extension is also checked against the measured persistence lengths of the rodlike poly[d(GC)] and poly[d(AT)] alternating copolymers, and the known cyclization tendencies of selected repeating sequences. Chains are generated from local potential energy maps describing the morphol. and flexibility of adjacent base pairs. The energy maps, while approx., are more accurate descriptors of local structure than many of the intuitive models of DNA curvature offered to date. According to the energy surfaces, the intrinsic bending of curved DNA can be traced to asymmetry

10/068160 Nguyen Page 85

in the bending of the quanosine and cytidine residues that join half-helical turn stretches of adenines in these chains. The oligo (A) stretches are analogous to residues of a perfectly elastic DNA that bend with equal likelihood in opposing directions. In other models of DNA curvature, the (G .cntdot. C) base pairs are presumed to adopt the classical B-DNA structure, whereas the (A .cntdot. T) base pairs are thought to be in some perturbed conformation.

115013-80-4 115013-83-7 IT

RL: BIOL (Biological study)

(flexibility and bending tendencies and dimensions of, calcn. of)

L19 ANSWER 32 OF 37 USPATFULL on STN

2004:69536 USPATFULL ACCESSION NUMBER:

Immunostimulatory RNA/DNA hybrid molecules TITLE:

INVENTOR(S):

Mond, James J., Silver Spring, MD, UNITED STATES Flora, Michael, Mt. Airy, MD, UNITED STATES Klinman, Dennis M., Potomac, MD, UNITED STATES

KIND DATE NUMBER _______ US 2004052763 A1 20040318 US 2001-874991 A1 20010607 PATENT INFORMATION: US 2001-874991 APPLICATION INFO .: 20010607 (9)

NUMBER DATE

US 2000-209797P 20000607 (60) PRIORITY INFORMATION:

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP,

1300 I STREET, NW, WASHINGTON, DC, 20005

NUMBER OF CLAIMS: 17 EXEMPLARY CLAIM: 1 5120 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention provides immunological compositions and methods relating to immunostimulatory intra-strand DNA/RNA hybrid oligonucleotides (HDRs), optimally encoding one or more CpG motif, which may be an unmethylated CpG motif. Administration of these compounds, alone or in the context of one or more target antigens, promotes innate

and antigen specific immunities. 381260-42-0 381260-99-7 381261-01-4 IT 381261-05-8 381261-06-9 381261-07-0 381261-08-1 381261-17-2 381261-19-4

(unclaimed nucleotide sequence; immunostimulatory RNA/DNA hybrid mols.)

L19 ANSWER 33 OF 37 USPATFULL on STN

ACCESSION NUMBER: 2003:300800 USPATFULL

TITLE: Immunostimulatory nucleic acids

Krieg, Arthur M., Wellesley, MA, UNITED STATES INVENTOR(S):

Schetter, Christian, Hilden, GERMANY, FEDERAL REPUBLIC

OF

Vollmer, Jorg, Dusseldorf, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): University of Iowa Research Foundation, Iowa City, IA,

52242 (U.S. corporation)

NUMBER KIND DATE _____ US 2003212026 A1 20031113 US 2002-314578 A1 20021209 PATENT INFORMATION: APPLICATION INFO .: (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-669187, filed on 25

Sep 2000, PENDING

Nguyen 10/068160

Page 86

NUMBER DATE

PRIORITY INFORMATION: US 1999-156113P 19990925 (60)
US 1999-156135P 19990927 (60)
US 2000-227436P 20000823 (60)
DOCUMENT TYPE: Utility

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Maria A. Trevisan, Wolf, Greenfield & Sacks, P.C., 600

Atlantic Avenue, Boston, MA, 02210

NUMBER OF CLAIMS: 106 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 12 Drawing Page(s)

LINE COUNT: 11893

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention relates to immunostimulatory nucleic acid compositions and methods of using the compositions. The T-rich nucleic acids contain poly T sequences and/or have greater than 25% T nucleotide residues. The TG nucleic acids have TG dinucleotides. The C-rich nucleic acids have at least one poly-C region and/ore greater than 50% c nucleotides. These immunostimulatory nucleic acids function in a similar manner to nucleic acids containing CpG motifs. The invention also encompasses preferred CpG nucleic acids.

IT 331880-34-3

(immunostimulatory nucleic acids)

L19 ANSWER 34 OF 37 USPATFULL on STN

ACCESSION NUMBER: 2003:283122 USPATFULL

TITLE: Chimeric immunomodulatory compounds and methods of

using the same - 11

INVENTOR(S): Fearon, Karen L., Lafayette, CA, UNITED STATES

Dina, Dino, Oakland, CA, UNITED STATES

Tuck, Stephen F., Oakland, CA, UNITED STATES

NUMBER DATE

PRIORITY INFORMATION: US 2001-299883P 20010621 (60) US 2002-375253P 20020423 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Randolph T. Apple, Morrison & Foerster LLP, 755 Page

Mill Road, Palo Alto, CA, 94304-1018

NUMBER OF CLAIMS: 33 EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 11 Drawing Page(s)

LINE COUNT: 7228

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides immunomodulatory compounds and methods for immunomodulation of individuals using the immunomodulatory compounds.

IT 482663-88-7P 482663-89-8P

(chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)

L19 ANSWER 35 OF 37 USPATFULL on STN

ACCESSION NUMBER: 2003:250945 USPATFULL

TITLE: Chimeric immunomodulatory compounds and methods of

using the same - I

Page 87

INVENTOR(S):

Fearon, Karen L., Lafayette, CA, UNITED STATES

Dina, Dino, Oakland, CA, UNITED STATES

Tuck, Stephen F., Oakland, CA, UNITED STATES

NUMBER KIND DATE _____ ___ US 2003175731 A1 20030918 US 2002-176883 A1 20020621 (10) PATENT INFORMATION:

APPLICATION INFO.:

NUMBER DATE ------

US 2001-299883P 20010621 (60) US 2002-375253P 20020423 (60) PRIORITY INFORMATION:

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Randolph T. Apple, Morrison & Foerster LLP, 755 Page

Mill Road, Palo Alto, CA, 94304-1018

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 11 Drawing Page(s)

LINE COUNT: 7092

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention provides immunomodulatory compounds and methods for immunomodulation of individuals using the immunomodulatory compounds.

482663-88-7P 482663-89-8P

(chimeric immunomodulatory compds. comprising nucleic acids linked through dendrimer or polysaccharide spacer and antigen for treating allergy, infection or cancer)

L19 ANSWER 36 OF 37 USPATFULL on STN

ACCESSION NUMBER:

2003:214333 USPATFULL

TITLE:

Combination motif immune stimulatory oligonucleotides

with improved activity

INVENTOR(S):

Krieg, Arthur M., Wellesley, MA, UNITED STATES

Vollmer, Jorg, Duesseldorf, GERMANY, FEDERAL REPUBLIC

KIND NUMBER DATE US 2003148976 A1 20030807 US 2002-224523 A1 20020819 (10) PATENT INFORMATION: APPLICATION INFO.:

DATE NUMBER

US 2001-313273P US 2002-393952P PRIORITY INFORMATION: 20010817 (60) 20020703 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: WOLF GREENFIELD & SACKS, PC, FEDERAL RESERVE PLAZA, 600

ATLANTIC AVENUE, BOSTON, MA, 02210-2211

NUMBER OF CLAIMS: 72

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 29 Drawing Page(s)

LINE COUNT: 3159

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

A class of immunostimulatory nucleic acids having at least two functionally and structurally defined domains is provided. This class of combination motif immunostimulatory nucleic acids activates an immune response and is useful for treating a variety of immune realted disorders such as cancer, infectious disease, and allergic disorders. The nucleic acids also stimulate activation of natural killer cells and production of type 1 interferon.

IT 500239-90-7

(unclaimed nucleotide sequence; oligonucleotides contg. stimulatory phosphorothicate motif and neutralizing motif for treating infections, allergies and cancers)

L19 ANSWER 37 OF 37 USPATFULL on STN

ACCESSION NUMBER:

2003:79087 USPATFULL

TITLE:

Inhibition of angiogenesis by nucleic acids

INVENTOR(S):

Bratzler, Robert L., Concord, MA, UNITED STATES

NUMBER KIND DATE PATENT INFORMATION: US 2003055014 **A1** 20030320

APPLICATION INFO.:

20011214 (10)

US 2001-17995 **A**1

> NUMBER DATE

PRIORITY INFORMATION:

US 2000-255534P 20001214 (60)

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE:

Maria A. Trevisan, c/o Wolf, Greenfield & Sacks, P.C., Federal Reserve Plaza, 600 Atlantic Avenue, Boston, MA,

02210

NUMBER OF CLAIMS:

74

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

1 Drawing Page(s)

LINE COUNT:

3268

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention relates to methods and products for inhibiting AB

angiogenesis. At least one antiangiogenic nucleic acid molecule is administered to a subject to prevent or treat unwanted angiogenesis.

Non-nucleic acid antiangiogenic agents also can be administered.

441364-86-9D, phosphorothicate linkage-contg. IT

(nucleic acids for inhibition of angiogenesis)

FILE 'HOME' ENTERED AT 14:56:07 ON 01 JUL 2004